

THE NATIONAL PROVISIONER

OFFICIAL ORGAN OF THE AMERICAN MEAT PACKERS' ASSOCIATION

PUBLISHED EVERY SATURDAY

ENTERED AT NEW YORK AT SECOND-CLASS RATES.

Vol. 49.

New York and Chicago, September 27, 1913.

No. 13.

MEAT PACKERS IN BIG MEETING

Eighth Annual Convention at Chicago Has Large Attendance and all Those Present Show Deep Interest

REMEDY FOR MEAT SHORTAGE IS THE VITAL TOPIC

The eighth annual convention of the American Meat Packers' Association was held at the Hotel Sherman, Chicago, on Monday, Tuesday and Wednesday of this week, September 22, 23 and 24, 1913.

It was held in conjunction with the Third International Congress of Refrigeration, which brought representatives of industries interested in refrigeration from all over the world, and allied industries and organizations of the United States held their annual meetings also during this period.

That the gathering of the packers, and what they said and did, attracted more attention from the public than any other feature of the World's Congress, is not recorded here in a spirit of boasting. That the packers' meetings were more largely attended and more extensively reported than those of any other section or auxiliary of the congress is not merely a compliment to the experience and energy of the officers and committees of the American Meat Packers' Association.

The packers attracted the most attention because they had the most to say of immediate and vital interest to the public. Just at this moment the question of meat supplies and meat prices is of heartfelt interest to the average consumer—even more so that the broad and deep problem of the conservation of our food supplies as a whole, a problem in which refrigeration is the basic and the saving element.

Without refrigeration—as Secretary McCarthy said in his address upon the visit of the Congress delegates to Chicago's Packingtown—without refrigeration the packinghouse of today could not exist. And without the packinghouse of today our urban population would have to subsist on something pretty close to a menu of "sow belly" and hard tack.

But even the modern packinghouse, with all its wonderful methods of conservation, cannot supply meat where there isn't any. It cannot make beef without steers. With our consuming population growing and our cattle supplies standing still, it becomes a problem involving something more than refrigeration. Which

explains in a way, perhaps, why the convention of the American Meat Packers' Association at Chicago attained such a generous amount of newspaper publicity.

The crisis confronting packer, producer and consumer alike is indicated in the opening paragraph of the Executive Committee's report at this convention, when it says:

"The American meat packinghouse situation and that of consumers of meat food products in this country are both of them more precarious than at any other time in our history. It naturally follows that the interests of the producers and the manufacturers are more intimately the interest of the consumer, who is the customer of both."

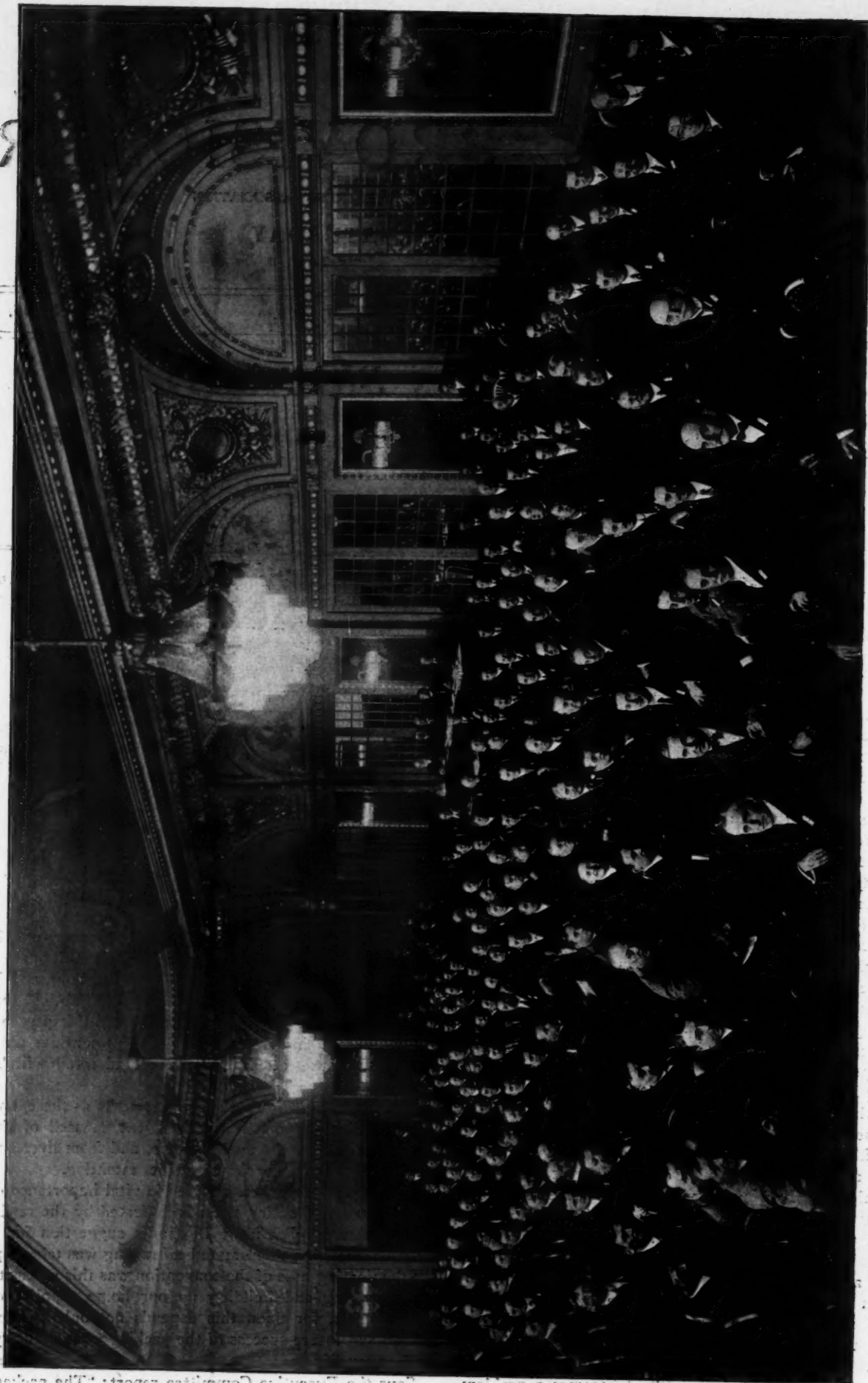
President Bischoff puts it picturesquely in his opening address when he says, referring to past periods of meat plentifulness:

"Those conditions of abundance have now utterly changed, and the surplus of cattle that this nation boasted of 15 or 20 years ago has been wiped out, and in its stead there is the gaunt spectre of a beef famine staring us in the face." And he adds: "Should this percentage of decrease (in our beef cattle supply) continue until 1923, porterhouse at a dollar a pound retail will be cheap!"

It is not surprising that such statements as these, and others of like purport from President Russell of the United Master Butchers of America, and from livestock expert James E. Poole, should attract attention.

That the meat packers realize the vital importance of the problem confronting them is indicated by the readiness with which President Bischoff's suggestion for a five-year campaign to promote beef raising was taken up. The dominating note of the convention was this necessity for conserving and building up our home supplies of meat animals, for upon this depends not only the expansion and future success of the packinghouse industry, but its very life.

Says the Executive Committee report: "The packers are in a serious predicament. The farmers of the country



MEMBERS OF THE AMERICAN MEAT PACKERS' ASSOCIATION IN THE CONVENTION HALL, HOTEL SHERMAN, CHICAGO, ILL., SEPTEMBER 22, 1913.

involved considerable more than the government. Which are in a certain predicament. The farmers of the country have the Executive Committee report. The packers

are not furnishing nearly a sufficient number of animals to keep the packinghouses in operation on anything like full time, and this results in heavy losses, owing to lack of volume of business." For the packer's profit depends not on margin, but upon volume.

All through the convention programme the changes were rung upon this one note. Banker Traylor in a masterly statistical review of the world's meat supplies proved beyond peradventure the truth of the assertion of scarcity. Editor Pearse from Australia held out some hope of partial succor from the Antipodes, but in the midst of his optimism he admitted that the combined resources of Australia and New Zealand were limited, that his country was approaching its maximum export capacity, and that the demands upon her by European consumers were becoming yearly more imperative.

Packers now realize—if they had not already realized—that the thing to do from now on is to stimulate home meat production. This can be done by educating the farmer in the ways of modern scientific breeding and feeding of meat animals—a task that it is admitted will require time, money and infinite patience and persistence.

But it can be helped along in another way, too, and that is the conservation of meat supplies now lost through disease on the farm and unnecessary condemnations by public authorities at the packinghouse. The loss caused by disease on the farm is too well known to need extended notice here. That phase of the problem will be solved along with the education of the farmer in profitable and up-to-date meat production.

But the loss through official ignorance and over-zealousness—a loss which has been costing the meat industry, and therefore the consumer, some millions of dollars a year—this loss is entirely unnecessary, and does not need time to bring it to an end. On this point the Committee to Confer said in its report to the convention:

"Our principal difficulty both in questions of national regulations and proposed state legislation has been that those in power know practically nothing of the actual conditions and necessities of packinghouse operation. We have been in the hands of honest, capable, well-meaning scientists on the one hand, and political office-holders on the other. Neither class has been able to charge the packers with any intent other than to produce the best class of meat-food products under the best operating conditions." And the committee might have added: "Yet both penalize us just the same!"

The committee told of one red-tape requirement for a change in labels which alone cost the trade more than a quarter of a million dollars. There was not a packer at the convention who could not duplicate that story in kind, and do it perhaps many times over.

There was no lack of vital topics of interest for convention discussion, as these references indicate. Convention sessions were fully attended and close attention was given to the discussion of these matters, and to the important and informative papers read by experts on packinghouse construction, packinghouse insurance, the manufacture of oleomargarine, the hardening of oils and fats and other money-making and money-saving subjects.

The entertainment feature of the convention is one which has its attraction for men who get up early and work hard all the year through, and who are entitled to their play-time if anybody is! It is no wonder they en-

joy their convention fun. When it comes to "letting off steam" the average packer can perform that function just about as thoroughly as he puts on steam at the packinghouse.

Demagogues and space-writers may cast aspersions on the annual packers' banquets, but no human being with blood in his circulatory system will begrudge the hard-working packer his annual ten dollars worth of banquet—please note the figures, Ten Dollars! He gets a good, wholesome six-course dinner—with a great deal less to drink than his critics suppose—and is permitted to take home to the kids a silver-plated candlestick or an ale mug or some such pleasing junk, and if he is held up to the world as a monster gorging himself upon his ill-gotten gains—well, he can stand it! He is rather accustomed to it by this time.

This year's "English Hunt Dinner" was the most picturesque of all the packers' banquets, for which Chairman Laurence Armour, Secretary Ed. Merritt and their helpers on the Banquet Committee deserve due credit. And it was followed the next evening by a cabaret smoker which was entirely ladylike—critics please note—and yet was chock full of fun. The dismemberment of a steer, in a prize beef-dressing contest the like of which was never seen before, was a novel idea emanating from the fertile brain of Chicago's entertainment genius, Arthur D. White, and the awarding of the parts to various prominent personages brought the entertainment programme, under Chairman Walter H. Miller's direction, to a hilarious close.

The administration of President Gustav Bischoff had a most impressive close, ending as it did with the launching of the beef production educational plan suggested by Mr. Bischoff. The new officers come in full of determination to seize their opportunities and make the most of them, and with President James Craig, Jr., at the head, the Association promises to have a busy and useful year.

The new officers elected were as follows:

President—James Craig, Jr. (Parker, Webb & Co.), Detroit, Mich.

Vice-president—Fred. Krey (Krey Packing Company), St. Louis, Mo.

Secretary—George L. McCarthy (The National Provisioner), New York.

Treasurer—George Zehler (Zehler Provision Company), Cincinnati, Ohio.

Executive Committee—John J. Felin (John J. Felin & Co., Inc.), Philadelphia, Pa., chairman.

Ralph W. E. Decker (Jacob E. Decker & Sons), Mason City, Iowa.

Howard R. Smith (Jones & Lamb Company), Baltimore, Md.

W. H. Miller (Miller & Hart, Inc.), Chicago, Ill.

John Theurer (Theurer-Norton Provision Company), Cleveland, Ohio.

Myron McMillan (J. T. McMillan Company), South St. Paul, Minn.

R. Mannheimer (Evansville Packing Company), Evansville, Ind.

Charles J. Walsh (Dunlevy & Brother Company), Pittsburgh, Pa.

Fred R. Burrows (G. H. Hammond Company), Chicago, Ill.

PROCEEDINGS OF THE CONVENTION

FIRST SESSION

Monday, September 23, 1913, 2 p. m.

THE PRESIDENT: This meeting will please come to order. Gentlemen of the American Meat Packers' Association: It affords me great pleasure to welcome you to the Eighth Annual Convention of the American Meat Packers' Association, which is recognized by our members as the most important event of the year in our industry.

It is on this occasion that we all get together and exchange our ideas, and with your kind permission I will read the following:

The President's Address

It is with great pleasure that I avail myself of the honor and privilege of addressing this assemblage. Next month I celebrate the fiftieth anniversary of my first entrance into a slaughtering house. I got an early start, beginning at 13 years, but from the outset I liked the business, and have stuck to it through thick and thin during what is more than the lifetime of an average man. It's a fascinating industry, with its constantly changing phases, and one who fears the hard work and close application to a business, incident to ever constant watch on these shifting conditions, should seek other and easier occupations.

Early Packer's Problem Was to Find a Market.

In the early years of my slaughtering experience the main problem that confronted us was how to find an outlet and a broad enough consumptive demand for the surplus stock that was offered us from every quarter. In those early days the ranges and farms were full of cattle, hogs and sheep, and the corn belt States were not so hard hit as now by the ravages of hog cholera, so that we never worried over insufficient supplies of livestock.

I well remember the days of a generation ago, when we could buy grass cattle shipped off the Indian reservations of the Southwest at the old Pacific Yards in St. Louis. The prices paid for those cattle frequently ran as low as a "dollar and a spit" per hundred pounds. To those of you who are not familiar with this term, I will state that this was a local slang expression, meaning a dollar and five cents per hundredweight. Similar cattle today are bringing four and five times the money, and are scarce at that.

Refrigeration Revolutionized the Industry.

Refrigeration methods of those early days were crude, and the early packers experienced great difficulty in preventing fresh beef from spoiling. The supplies were often very much in excess of the demand, and in spite of the low cost of the cattle we would frequently lose money on our purchases through inability to find a ready outlet for the beef.

This condition of affairs prevailed for many years. Relief did not come until those far-sighted pioneers of the packing business, P. D. Armour, G. F. Swift, Nelson Morris, the Cudahy brothers and others, sought foreign markets as a means of disposing of the general surplus and much of the cheaper cuts which were sold as canned meats. Modern methods of refrigeration have aided materially in this work.

Through these means of refrigeration we have been able to handle successfully large runs of cattle and other animals, as it is now possible to keep meat products in prime condition for several months before they are consumed. These changes have not only been helpful to the packer, but also to the farmer and consumer. They insured a good market for the animals on foot, and a uniform supply of good meat the year round at reasonable prices to the consumers.

The Gaunt Spectre of a Beef Famine.

Those conditions of abundance have now utterly changed, and the surplus of cattle that this nation boasted of fifteen or twenty years ago has been wiped out, and in its stead there is the gaunt spectre of a beef famine staring us in the face. The best grazing lands of Western ranches that formerly abounded with cattle are now being cut up into farms, and the poorer ones are devoted to sheep.

This transition has been so rapid, due to the desire of our people to own farms, that even those of us who are in close touch with the situation fail to grasp the gravity of conditions. According to Gov-

ernment figures, in 1907 there was about one head of cattle of all kinds for each man, woman and child in the United States, whereas at the opening of 1913, the present year, there was in this country only six-tenths of one head of cattle per capita. This shows the alarming comparative decrease of 40 per cent. in our cattle supply on the hoof in a period of six years.

I could go more extensively into statistics covering the world-wide scarcity of cattle, but this point will be fully covered by Mr. Traylor, who will later address this assemblage.

Porterhouse Steak at \$1 a Pound.

To sum it up, I will state that, if the next ten years show the same percentage of decrease in our beef cattle supply as we have experienced during the past decade, the price of fine steaks will be



JAMES CRAIG, JR.

(Parker, Webb & Co., Detroit, Mich.)
President-elect of the Association.

absolutely prohibitive as far as the masses of our people are concerned. Should this percentage of decrease continue until 1923, porterhouse, at a dollar a pound, retailed, will be cheap.

If this comes to pass, it will mean nothing more or less than the great working class of this nation will go on a potato and rice diet. Once that era sets in, it will mark the beginning of a decline of the American people, for many of the wonders that we have achieved since 1776 have been accomplished through the aid of good, rich, red, juicy beef. Once our workmen are forced to the scanty diet of the Chinese, we will see the industrial productive genius and ability of the United States dwindle away.

So much for the past. We will now consider the future as it looks to me at this hour, analyzing the conditions in an unbiased, unprejudiced way.

As meat packers, members of this association are vitally concerned in averting the threatened calamity, not only to our business, but, as I have pointed out, the impairment of the American nation as a whole.

Nearly all ills have a remedy, and I am glad to say that in my opinion we can by immediate and earnest effort prevent the culmination of this threatened disaster. Individual effort is useless, but concerted action on the part of the individuals will accomplish results.

The Effect of Meat Tariff Legislation.

The most recent adverse factor tending to frighten the producers of cattle has been tariff legislation.

Personally, from what I have learned through close observation and inspection of frozen Argentine and Australian beef imported and offered for sale at New York, our cattle growers have little to fear in a direct way from foreign competition. Hotel and restaurant men tell me that this imported frozen beef will not begin to compare in quality and flavor with our native corn fed meat, and must sell under the home-raised product in our domestic markets.

In an indirect way, however, the liberal importation of Australian and Argentine beef will seriously affect the general business of the country. Say they bring in only 5,000 head a week. Now, this small supply will amount to but little, compared direct with the weekly slaughtering at all our markets. Yet 5,000 head weekly would mean the loss of nearly \$500,000 per week to the domestic cattle producers, also a loss to our home packers and stock yards. There is the additional loss of this number of hides and of fertilizer materials, which has a bearing on maintaining the fertility of our farms, etc. Again there is the direct loss of hundreds of thousands of dollars of gold weekly, which will go out of this country and will help make Argentina and Australia rich.

Can We Raise a Sufficient Beef Supply?

Therefore, in my opinion, we should not legislate to encourage farmers and stock raisers of other countries to supply our people with the beef which we should furnish from our own farms. This brings us to the question, "Can the farmers and ranchmen of the United States get back into beef cattle raising on a scale sufficient to supply all our needs?"

Thanks to the efforts of some of our Western agricultural colleges, and the general introduction of the silo and the growing of alfalfa, we have been shown the way to successfully produce beef cattle on high-priced land, and thus in a measure offset the losses incident to the passing of the range. The one great excuse that our corn belt farmer makes for his failure to raise his own stockers and feeders is that he can't afford to do it. In other words, he labors under the false impression that he makes more money by selling his grain at the elevator, instead of feeding it to livestock.

It is a most pernicious line of reasoning on his part, and to educate him out of this fallacious belief and show him the real truth of the matter will require a carefully-planned and well-executed educational campaign. The States should not be left to do this alone. The question at issue is vital to the nation at large. It is of vital concern to our own interests, and we should aid in a campaign of this kind. What it needs now is well defined leadership, and in this connection the American Meat Packers' Association should lend a helping hand.

The Farmer Must Be Shown His Error.

The Iowa Agricultural College at Ames has taken an advanced position in solving the beef cattle problem, and has done much to show the light to her own farmers. A State beef producers' association has been organized. Beef trains have been run over several of its railroads. Through careful and extensive experiments at the Iowa station it has been demonstrated and proved that with every bushel of corn the farmer sells direct to the elevator he markets 16 cents' worth of soil fertility. In other words, if the corn commands 60 cents at the elevator, a good average price, the farmer really gets only 44 cents, the balance of 16 cents representing the actual value of the fertilizer essentials lost from his land, the growth of the bushel of corn removed from his farm.

Now, if the farmer had fed his bushel of corn to a beef steer, he would have retained all but 5 cents' worth of the essential soil elements. In other words,

the price he would receive through feeding the grain would be 55 cents a bushel, instead of 44 cents at the elevator.

The same experiments with oats showed that where the grain is sold at the elevator 12 cents' worth of soil fertility goes along with them. If the oats be fed to livestock, all but 4 cents' worth of the soil elements are retained on the farm in the manurial deposits.

During the last five years in Iowa, men who have fed their grain to beef cattle have received from 10 to 25 per cent. more actual net cash returns than they would have done by marketing the grain at elevators, to say nothing of the fertility added to the farms.

Gospel like this should not be confined to Iowa alone. It should be taken into every cattle-raising State. Work of this kind would pay unbelievable dividends.

The Silo and Alfalfa as Life Savers.

As I stated before, the silo and alfalfa-growing comes as a God-send as an aid to relieve the beef cattle shortage. It will enable the conservation of a larger proportion of feed crops than formerly, and during drought seasons, such as we have experienced this year, save enough feed out of the general wreck to enable the carrying over and wintering the stock cattle, thus preventing in the future such sacrifices as we witnessed in 1901 and during the present year.

The Iowa station last year carried 44 head of pigs on one acre of alfalfa pasture from May 8 to November 15. They went in weighing 30 pounds each and came out weighing 215 pounds. No other feed had they except an average of three pounds of corn per day per 100 pounds of live weight for the entire period. Figuring the corn at 50 cents a bushel, and allowing \$12 as rental and other fixed charges for the land, the net profit from the hogs raised on this one acre of alfalfa was \$184, and the price of the fat hogs was reckoned at only 6 cents per pound, which was below the regular market.

Now, gentlemen, \$184 profit per acre for a single season is an attractive proposition enough for the average farmer of the West. The trouble is that a majority of them do not know how to go about it to get these results. They must be educated to that end.

Can Beef Producers Raise Their Own Cattle?

Does it pay in a practical way in the corn belt to raise your own feeders? I have shown what the agricultural college experts say of the profitable aspect of beef cattle raising and feeding in the corn belt. It would certainly be appropriate right here to cite merely one of many instances where practical hard-headed every-day farmers have succeeded along this line, accomplishing this without higher learning and expert advice. Just a short time ago J. G. Dougherty, at Jerseyville, Ill., sold at St. Louis National Stock Yards a bunch of steers, 22 head, weighing 814 pounds, at \$8.75 per hundredweight. Here is what Mr. Dougherty says of his cattle:

"These steers can truthfully be called a home product. Every animal was dropped on my farm. All the hay and corn they ate I raised at home. I also fed them cottonseed meal, and, while I did not raise this on the farm, yet I traded a lot of cloverseed to a neighbor for three tons of cottonseed meal. In this way you may truthfully say that all my venture was a home-grown affair.

"After my calves were weaned last fall I started them on feed. By November they were getting cowpeas and crushed corn with a little cottonseed meal daily. When spring came on and grass appeared I gave the cattle a little crushed corn daily, together with cottonseed meal, and gave them free access to grass. The steers gained well for me and made money. They were purebred Shorthorns and polled Durhams. They had the quality. The oldest steer in the bunch was dropped December 5 and was a year and a half old. He weighed 1,180 pounds. How's that for quick maturity? The youngest calves were only 12 months old.

"I think it pays to raise feeders in the corn belt, but confine my efforts to yearlings. In other words, I turn my steers to market in a year's time. Then it pays. To hold them till they are 3's and 4's would not pay on high-priced land."

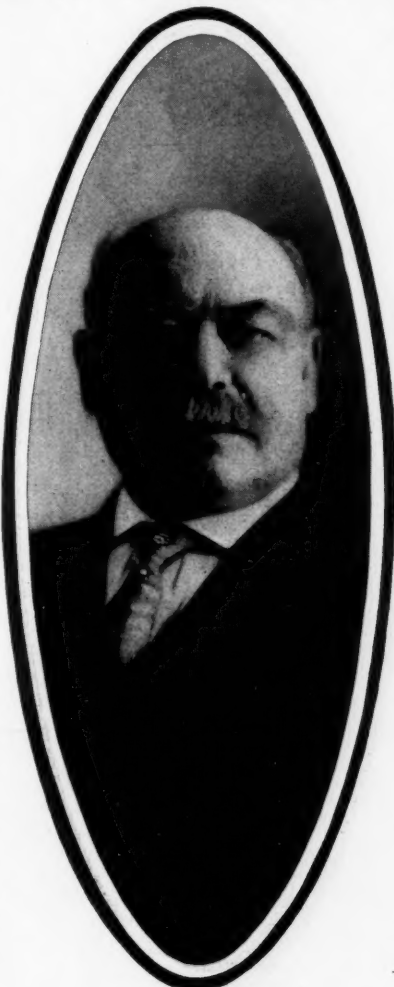
Beef Outlook Outside the Corn Belt.

Now, all the opportunities for the re-establishment of our beef cattle industry are not confined to the corn belt States. The range districts of the West and Southwest now under new conditions offer great promise along this line. The system, however, must undergo a change, for there is no more free grass, and the cowman must overcome the obstacle of operat-

ing on high-priced land. It will take some years, therefore, for him to adapt himself to the new regime.

Texas ranchmen of the old school realize the necessity for a complete change of methods in handling cattle. In this connection I will state that Ed. C. Lassater, former president of the Texas Cattle Raisers' Association, who operates a 400,000-acre ranch in the lower Gulf coast country, is now establishing a model beef cattle farm of five sections on his own ranch. On this he aims to solve the beef steer problem himself, and not wait for the Government to show him.

Still another field for the development of our declining beef cattle industry is offered in the States south of Mason and Dixon's line and east of the Mississippi River. There the States and Federal authorities are working strenuously in the endeavor to clean up the fever tick, so as to enable the small farmers to handle cattle successfully. In no other portion of the United States are the conditions so favorable for beef production as in the South.



GUSTAV BISCHOFF, SR.
(St. Louis Independent Packing Co.)
Retiring President of the Association.

The Mississippi Experiment Station has shown that beef cattle feeding in that State can be made highly profitable. This summer the station has marketed native fed steers at \$8.10 per hundred pounds on the hoof. That shows what they are doing locally. Alabama, Mississippi, Tennessee and other States are also ripe for a beef cattle crusade. One Southern farmer has just placed an order for 500 Angus heifer calves, to be used as the foundation of his beef bunch.

The Cattle Tick and Beef Production.

Many of my audience who live down East and do not come in contact with Southern cattle problems do not realize the magnitude of the national and state campaign that is being waged against the cattle fever tick, which hitherto has been the great drawback to the South's advancement in beef produc-

tion. Some seven years ago the work of tick eradication was begun in earnest by the United States Department of Agriculture, and hearty co-operation was given by many States interested.

In that comparatively brief time this cattle pest has been completely eradicated in an area covering 196,000 square miles. To enable you to grasp these figures more thoroughly, I will state that this territory is equivalent to five times the area of the State of New York. This is a very good record, and I think our association would do well to thank the Government for its earnest prosecution of such work.

In this brief talk to you I think I have only outlined what has and can be done to bring our nation back to the position where we will be able to supply beef for our own people, and also have a surplus each year to send to other countries that need muscle and brain-making food. But, as I have said before, we cannot achieve this end through following the methods employed by our average farmers in the past decade. A new regime must be established at once, and the American Meat Packers' Association should take the lead in a concentrated campaign of encouragement and education.

Let us be done with muck raking and yellow journalism scares, and ward off the meat famine that otherwise is as sure to come as night follows day. We need and must have a wise educational campaign, general in extent, that will turn our farmers into beef producers, and make them real farmers instead of soil misers, such as they are today—worse robbers, from the viewpoint of posterity, than Wall Street ever was or will be.

American Beef for the American People.

This is not something which can be left undone for one or more years. The time is ripe, and the iron is now hot, and it is up to us to strike. If we do, we can restore our beef cattle industry and have American beef for the American people.

In conclusion, gentlemen, I wish to say that, in my judgment, this is the most important and timely problem before our American people. It directly concerns every man, woman and child in this country.

Are we to close or partially close the doors of our packinghouses, stand idly by and watch our gold flow into other countries for beef of an inferior quality?

Or are we going to take the initiative in an educational campaign, such as will convince our farmers that the permanency of our agriculture depends upon the feeding of a large share of our crops to meat-producing animals, and show our people in general that the United States can and is going to supply our American people, the greatest nation on the face of the earth, with the richest and juiciest of beef, so that we may as a nation continue to be supreme, and the whole world may truthfully say of us that, of all that is good, American affords the best.

As president of this association I would recommend that we take immediate action on this matter, and that we raise a fund of not less than \$100,000 per year for a period of five years, to inaugurate a well-planned educational campaign among the farmers and ranchmen of the United States in the interest of beef production.

I pledge you, gentlemen, that I will get back of this movement, and gladly contribute my share of the money needed to conduct such a campaign. (Great applause.)

Committee to Conduct Beef Campaign.

MR. AGAR: Mr. Chairman, I move the adoption of our President's report, and also that a committee of seven be appointed to put this campaign into effect.

MR. OGDEN: I second the motion.

THE PRESIDENT: Gentlemen, you have heard the motion, which has been seconded, that the President be authorized to put this campaign into effect. All those in favor of the motion will please signify it by saying aye; contrary, no. The ayes have it. It is so ordered.

THE SECRETARY: I have a few announcements here to make, gentlemen.

Here is a letter from the Board of Trade of the City of Chicago, addressed to Mr. James S. Agar, which is as follows:

"I am directed by the Board of Directors of this Association to extend through you to the visiting delegates of the American Meat Packers' Association at the convention occurring in this city next week the courtesies of the floor of this exchange during business hours from 9:30 a. m. to 1:15 p. m. If you will advise me if the delegates will be

provided with badges or with your card with their names written on the back, or any other method by which they can be identified by our doorkeepers, they will be instructed to admit them on presentation at the door."

So all our visiting delegates will be furnished with passes if they wish to go on 'change. In order to get the matter properly before this meeting, I will move you, Mr. President, that the thanks of this Association be extended to the Board of Trade for this courtesy.

THE PRESIDENT: It has been moved and seconded that the thanks of this Association be extended to the Board of Trade for the courtesy extended to our organization, to our members who are attending this convention in Chicago.

All those in favor of the motion signify it by saying aye; contrary, no. The ayes have it. It is so ordered.

THE PRESIDENT: The next business in order is the report of the Executive Committee, which will be read by Mr. James Craig, Jr., chairman.

MR. CRAIG: Mr. President, Members of the American Meat Packers' Association:

I have attended all of the meetings that this Association has had except the last, and I want to warn you how dangerous it is not to attend them all. At all of the other meetings I have been down there enjoying myself among my friends, but at the last meeting I was away and they put me on the Executive Committee, and that is how I am here; so take warning!

Report of the Executive Committee.

The American meat packinghouse situation and that of consumers of meat food products in this country are both of them in a condition more precarious than at any other time in our history. It naturally follows that the interests of the producers and the manufacturers are more intimately the interest of the consumer who is the customer of both.

We are facing conditions in the production of meat food products which would have been thought impossible ten years ago. The shortage of live stock which has been impressed upon us as packinghouse producers for several years has been intensified during the past year. Our population is growing at its normal rate. We have passed the point where demand has overtaken production, and we are now on a basis which shows that demand exceeds the supply of meat food products to such an extent that we have abnormally high prices for meat food products.

To the unthinking this latter fact taken by itself might argue that the packers are making an abnormal profit. But as a matter of fact the same law of supply and demand which increases the price of the finished product goes all the way back to the raw material, the live animal, and back of that again to the feed stuffs which are necessary for the finishing of meat food animals.

While the consumer of meat food products is undoubtedly confronted with an exceedingly serious situation, and this is particularly true of the laboring and similar classes, it is also true that the packers are in a serious predicament. The farmers of the country are not furnishing nearly a sufficient number of animals to keep the packinghouses in operation on anything like full time, and this results in heavy losses, owing to lack of volume of business.

In this respect there seems to be no immediate prospect of relief. Despite the high prices for live stock of all kinds, statistics show that the farmers not only are not increasing their production of meat food animals, but that such production is decreasing at an appalling rate.

It is not our intention to do more than call the attention of our members to the situation with which the entire industry is confronted. It simply means that our plants will have to be run with a shortage of raw material; that consequently there will be high prices for live stock because of our demand, and again consequently high prices for the finished product.

Tremendous Meat Loss Through Animal Disease.

Another factor in the troubles which confront us is that the public has not been awakened to the tremendous loss of meat food animals through preventable diseases. Authorities of all kinds—whether veterinarians, packers, government officials or live stock ex-

perts—all agree that the loss of actual meat through these preventable diseases is something tremendous. The Department of Agriculture of the United States Government several years ago estimated this loss at over twenty-five millions of dollars per year.

Practically nothing is being done either by State or National authorities to eradicate the most common of these diseases. This assertion is made with all due respect for the splendid work which has been done by the Bureau of Animal Industry toward the eradication of certain forms of diseases. But some of the other diseases which are especially communicable to human beings are practically ignored.

While we as packers suffer the burden of the loss of condemned diseased animals the public should bear in mind that all condemnations of animals or parts of animals in a packinghouse are actually an added charge on the cost of production, and are necessarily as much a part of the cost account as any other expense in a manufacturing establishment.

Beyond the loss, however, in the condemnation of diseased animals is the actual loss through disease on the farms of animals which, if corrective measures

which has been created against packers and the packinghouse industry, it is extremely difficult to arouse public sentiment on the basis of any statement made by those in the industry.

It should be true, and it is true, that the packers are responsible for the total output of meat food products, and those whose business it is to study all of the conditions affecting their business should be those who are in the best position to advise the public. But it is unfortunate that, though we have given previous warning of the conditions which now confront us, our statements have been discounted and the public has not insisted upon measures which would bring relief.

It should not be necessary to add to what we have already said, that the present prices for meat food products have reached such a point that they are an actual burden upon the consuming public, and upon the packers as well. If the public could be made to understand that high prices for meat do not mean high profits in the packinghouse, much of the difficulty would be solved.

We commend to you the idea that you, and through you members of Congress and of the state legislatures, should be impressed with the fact that laws can and should be passed which would go far toward relieving the present so-called "high cost of living," so far as it applies to meat food products.

In final review of this general proposition it seems to your committee that there is no legitimate fault to be found with the live stock raisers because of the price they get for their animals, nor with the packers because they have to pay such high prices for their raw material, nor with the retail butchers because they are compelled to pass the cost along to the consumer, but the whole difficulty is based on an alarmingly decreasing supply in the face of a constantly growing demand.

Attitude of the Association on the Tariff.

Very recently Congress has seen fit to remove the duties on both meat food products and live stock. The outcome of this action will be awaited with interest, though it does not seem possible at this time that the action of Congress will be any relief to the situation.

Your Association has made no attempt whatever to oppose this action, because it has been the belief of your officers that to do so would be superfluous. There is a world's shortage of meat food animals and meat food products. We are just about at the point where we are feeding ourselves and no more, but we are at least doing that. Other countries are not so fortunate, and must buy their food supplies in the markets of the world.

If we are to import meat we must bid against other countries in the world's markets for it, and the supply in other countries is not sufficiently large to be attractive. It would be a source of satisfaction if our packers and wholesale and retail dealers could augment their stocks from other countries, but the public must not be misled into thinking that a mere reduction or an obliteration of duties will produce meat.

The Hog May Save the Situation

The one ray of optimism which is apparent is the ordinarily despised hog. It can be reproduced, fed, slaughtered and placed before the consumer within a period considerably less than a year. The price at which hogs are selling now, and at which they probably will sell for a long time to come, should be a sufficient attraction to our farmers to raise them, not alone for their own consumption but for the public markets. Our people have learned to like pork, and not to despise it as they did when its price was so low as to cast suspicion upon its value. It is nutritious, and when produced under the extremely radical requirements of our government inspection makes not only a very desirable alternative for beef, but one which is very wholesome.

In the production of hogs, and therefore of pork products, however, the question of the eradication of disease strongly enters. Hogs are susceptible to many diseases which are of such a nature as to make their meat an improper article for food products under such conditions. Again, no attempt has been made on a serious scale to eradicate disease in the live animals. The loss both economic and actual on hogs is much larger than it is on beef, as you know, and again we recommend to you the idea that you should create public sentiment which will cause remedial laws to be passed.

We think that you should also impress upon the public at every opportunity the fact that you buy all of your live stock, of whatever kind, without any guarantee whatsoever of its soundness; that you practically have no means whatsoever of ascertaining



GEORGE L. MCCARTHY
(The National Provisioner, New York).
Secretary of the Association.

had been applied, would have added just that much to our meat food supply.

Still another cause of the shortage of meat in this country is the unthinking slaughter of calves, and especially of heifer calves. There has been an increasingly growing trade among a class of our newer citizens for comparatively immature veal. Economic conditions on the farm have made it seem desirable to our farmers that they should slaughter off their calves as rapidly as possible. Prospective beef, therefore, has been curtailed, not only in the slaughter of heifer calves, but in the reproductive channels necessary to a perpetuation of our meat supply.

No Relief Until the Public Wakes Up.

There will be no effective relief in this situation until the public has actually awakened to the real facts. Owing to the unthinking popular prejudice

whether a live animal is diseased or not, and that after the animal or parts of it are condemned by the government officials you suffer a total loss and you have no recourse against the producer.

If the public were made to understand that producers of diseased live stock, almost invariably through faults of their own in the conduct of their farm, are permitted to sell their "counterfeit" goods to you at the full value of healthy animals, there would be a revulsion of public sentiment which would speedily cause a cleaning-up of the disease-breeding places which are a menace to the public health.

Dairy Farms Are the Chief Source of Disease.

You should also acquaint the public with the fact that the diseases which cause the tremendous losses of meat food animals are almost invariably directly traceable to dairy farms. The same diseases which cause the loss of cattle and hogs are the same diseases which go into milk, butter and other dairy products.

You know well enough that dairy products are carrying diseases to the general public, and particularly to children and invalids, which would cause a nation-wide agitation if the public knew of its real danger. Because the warning comes from packinghouse sources it is not regarded as it would be if others gave it. But it can only be a question of a comparatively short time until for its own protection the public will have to put an end to conditions which are not only about as bad as they can be, but which are growing worse.

The work of your Association in your behalf has been incessant during the year. Owing to the ramifications of the business, and because of its volume, it has not been apparent at times when action has been taken. We can assure you, nevertheless, that wherever our industry has been interested it has been the pleasant duty of your officers to investigate and to represent you. Some of these matters will be reported to you by other committees, but we think our members should realize more strongly than ever the necessity of this mutual association which represents mutual interests, and which affords a forum for the discussion of matters which are of mutual concern.

The need of such an Association as ours, not only as an organization, but as a means for discussing intimate questions, was never more apparent than at this time. There can be no question but that the packinghouse industry as a whole is facing a crisis, because of the new conditions which are upon us. The shortage of live stock, the almost constant agitation for restrictive laws in Congress and in the State legislatures, the public prejudice because of high prices, and other equally embarrassing conditions, make it imperative that the packers should have an organization through which and in which they can discuss and if possible relieve their troubles.

It is a pleasure which we have not heretofore had, and which we may never have again, to extend our very cordial greetings and welcome to the International Congress of Refrigeration. We are deeply interested in its deliberations, and we have the highest respect for the personality and accomplishments of its delegates. They will be more than welcome to our sessions and to our entertainments, and we hope that they will learn as much from contact with us as we know we will from becoming better acquainted with them.

In conclusion, your committee thanks the members for their cordial and patient support during the year, and we bespeak the same loyalty for our successors.

Respectfully submitted,

THE EXECUTIVE COMMITTEE.

CHARLES E. ROTH: I move that the report be accepted as read. (Motion seconded.)

THE PRESIDENT: All those in favor of the motion signify it by saying aye; contrary, no. The ayes have it. It is so ordered.

A Warning from the Secretary.

THE SECRETARY: Gentlemen, I am going to rise to a point of personal privilege, if I may do so. I see some of you are getting a little bit uneasy, some of you are going out and some of you are not quite paying attention to these papers, and your Secretary is the one who, perhaps, has got to study the conditions more than anybody else; and I want to tell you that the papers that are prepared for you and these reports are the results of months of efforts. There are not superfluous words in them. It is your business to listen to them, and if you gentlemen want to listen to them, or if you don't want to pay attention to them, you are going to be the losers.

I say to you that the packinghouse business

is now in a serious situation, one such as it was never confronted with before. We have arranged this programme for your benefit, and I hope you are going to listen to what has been prepared for you. I hope you will listen patiently, and I hope you will profit by it. If you do not, it is not my fault. (Applause.)

THE PRESIDENT: The next will be the report of Committee to Confer with Government Officials, by James S. Agar.

Harassed by Incompetent Outsiders.

MR. AGAR: I thought, gentlemen, that I had gotten out of the limelight at the last banquet when you presented me with a beautiful punch bowl—which I never got—but I think it a duty to myself to identify myself as strongly as you gentlemen see fit for me to do, inasmuch as I am interested in this packing industry, and it is a great industry. But we get a good many knockdowns and a

of agitations for more stringent and often unnecessary laws in various states, and economic conditions have resulted which have added to your burden. Though previous conditions were sufficiently harassing, they have in some instances become worse.

For the first time since the passage of the meat inspection law it became necessary to make a test case in court to ascertain how far the government's powers reached. We have always done everything in our power to uphold the Government in its enforcement of the meat inspection law. Frequently we have felt that an injustice has been done us, but our attitude has been and is that of loyal and law-abiding citizens.

Our principal difficulty both in questions of national regulations and proposed state legislation has been that those in power know practically nothing of the actual conditions and necessities of packinghouse operation. We have been in the hands of honest, capable, well-meaning scientists on the one hand, and political office-holders on the other. Neither class has been able to charge the packers with any intent other than to produce the best class of meat-food products under the best operating conditions.

Sausage Ruling Made a Test Case.

It became necessary, however, for us absolutely to disagree with the National government on one of its regulations because upon the face of it to us it was entirely unjust. This was the regulation which restricted the use of cereal and water in sausage.

The impression was given to the public that these ingredients were used as adulterants. As a matter of fact they have been used as far back as the history of sausage-making goes, and when used simply make one form of sausage out of several hundred. There has been a demand for this sausage especially because of its digestibility, and the only result of the government requirement that it be restricted has been to take out of the market a cheaper form of a very wholesome and palatable food product, and to raise the price of a richer and less nutritious substitute.

This case was tried in the lower federal courts and was decided against us upon technical legal grounds, which were at least decidedly debatable. An appeal was taken to a higher court and a decision is expected within a short time. The result is interesting not only as it applies to sausage, but as to whether under the meat inspection law the Government has the right to dictate the ingredients which go into all forms of compounded meat food products.

Enormous Loss Due to Label Changes.

We have had occasion repeatedly to call the attention of the national government to the fact that tremendous sums of money have been wasted owing to the many changes required in labels. Labels on some articles have been changed as many as seven times in the seven years in which the law was passed. Each of these was previously approved by the Government, and when large orders were placed for them after the Government had duly approved them they were a total loss when other changes were made.

We have urgently requested the Department of Agriculture to settle the forms of labels permanently so that these losses may be avoided. That this seems imperatively necessary is indicated by the fact that on one change that was required the cost for plates alone to the industry was more than one quarter of a million dollars. This did not take into consideration the loss of the previous labels which were on hand, nor the delay in shipping products sold under contract until new labels could be produced.

We have also urged the Government to give sufficient time when they do make such changes to have the labels printed. "Immediate orders" do not take into consideration that it is often three or four months before labels, wrappers, cartons, etc., can be secured, nor do they take into consideration the fact that the same products have been shipped for the past seven years under Government approval. You are all aware of the annoyance and inconvenience of these orders, but you should acquaint the public with the fact that these conditions are not subject to your approval, and that you have no control over them.

Dealings with the Railroads.

The Railroad Freight Associations requested a hearing on several new forms of requirements for packages commonly used for meat food products, and it was found that these would be highly expensive and unnecessary in our business. Accordingly a special committee was appointed to represent your association before the railroad classification committee, and it made such representations as we believe will result ultimately to our advantage.

We have thought it necessary to call the attention of the railroads to the limited liability livestock con-



JAMES S. AGAR
(Western Packing & Provision Co., Chicago)
Member of Committee to Confer.

good many set-backs; we get things said to us by people whom I do not know as we would desire to have—some of them—for \$10 a week to do some of our running errands. (Applause.) But we are confronted, gentlemen, with a situation where we want to uphold and support all of our working fellows.

Gentlemen, the report of the committee is as follows:

Report of the Committee to Confer With Government Officials

The work of your committee this year has not been entirely satisfactory to us or to you, owing to the change in the National administration and because

tract now in existence, which was prepared several years ago when the price of livestock was considerably less. We have been met with the statement that it is possible to ship livestock under an unlimited contract at a higher rate, but owing to the tremendous volume of our business, both in livestock and the finished products, we feel that the railroads will realize the justice of our request that the maximum limits be raised. It is not conceivable that, should they grant this request that the rates on livestock will also be increased, because the public is not in a frame of mind which would permit of increased transportation charges on any form of food, whether raw material or finished product.

Many other subjects which your committee has been interested in during the past year include the following:

- Construction requirements.
- Gelatine.
- Incompetent inspectors.
- Oleomargarine.
- Cold storage laws.



CHARLES E. ROTH
(J. C. Roth Packing Co., Cincinnati)
Retiring Treasurer of the Association.

Lack of uniformity in the application of inspection.
Unnecessarily expensive regulations, etc.
Head cheese.
Chicharron lard.

Respectfully submitted,
GENERAL MICHAEL RYAN.
JAMES S. AGAR.
GEORGE L. MCCARTHY.

MR. AGAR: Gentlemen, I only hope that we will live to see the day when we will be united as we should be, and that we will see the completion of some of our plans, and results which will be of benefit to us all in the industry. I thank you. (Applause.)

THE PRESIDENT: Gentlemen, what do you wish to do with the report of the committee?

SEVERAL VOICES: Move that the report

be adopted and filed. Motion seconded.
THE PRESIDENT: It has been moved and seconded that this report be adopted and filed. All those in favor of that signify it by saying aye; contrary, no. The ayes have it. It is so ordered.

Report of the Treasurer

MR. ROTH: Gentlemen, I beg to submit my annual report as follows:

Financial report of the Treasurer, year ending September 20, 1913:
Cash on hand October, 1912..... \$244.23
Receipts during the year:
Active membership dues paid to October, 1913.. \$6,855.77
Associate membership dues paid to October, 1913 3,544.23
Active membership dues paid to October, 1914.. 50.00
Associate membership dues paid to October, 1914 50.00
Interest (deposits)..... 60.00
Contributions toward expense of sausage suit.. 2,550.00
..... \$13,110.00
Total \$13,354.23

Disbursements during year:
Secretary's office \$5,190.11
Legal services 1,375.00
Treasurer's office 38.50
Committee meetings 2,471.10
Annual meeting 2,802.85
American Association of Refrigeration 50.00
Chamber of Commerce of the U. S. 50.00
Collection expense 5.95
..... \$11,983.51
Cash on hand September 20, 1913 \$1,370.72
..... \$13,354.23

THE PRESIDENT: Gentlemen, you have heard the report of our Treasurer. What do you wish to have done with it?

MR. AGAR: I move that it be adopted as read. Motion seconded.

THE PRESIDENT: It has been moved and seconded that the Treasurer's report be approved as read, and that it be filed. All those in favor of this motion signify it by saying aye; contrary, no. The ayes have it. It is so ordered.

The next, gentlemen, will be an address by John T. Russell, President of the United Master Butchers of America.

RETAIL BUTCHERS' REMEDIES FOR THE MEAT SHORTAGE

By John T. Russell, President United Master Butchers of America

Mr. President and Gentlemen of this Convention: I feel highly honored personally, and as the national president of the United Master Butchers' Association of America, to be invited for the third time to address the American Meat Packers' Association. It engenders a feeling of friendship that should always exist between the packers and the retail meat dealers of this country.

Friendship, confidence and integrity go a long way to remove obstacles that interfere in the transaction of business. The retail dealer realizes it in his business, and I am sure that you need no instructions. But there are some of the over-zealous packers that desire to encircle the earth with their "golden hoop" and do all the business, both wholesaling and retailing.

I don't consider that is justice to the retailer. They get his money, and should be satisfied to let his trade alone. Let the retailer have his little mite of profit. There are no refrigerator cars going to heaven to carry the money, but there are coal cars going the other way, where ample reservations can be made for the fellow who doesn't consider that friendship, confidence and integrity are a valuable resource.

The Great Shortage of Meat Animals.

At the present time this country is confronted with a great shortage of livestock. This condition was foretold some years ago by the United Master Butchers' Association. We were laughed at by some of the "wise men" and cattle raisers when we tried to have legislation enacted to restrict the slaughter of calves and breeding cows, and every obstacle possible was used to prevent it. Columns were printed in the newspapers blaming the retailer for overcharging the consumer, but the truth of our assertion has materialized to a greater extent than was predicted.

The worst is yet to come. We have a steady increase in our urban population, and a constant decrease in livestock. This means that the price of meat will be prohibitive to the meat consuming public of moderate means. They are paying their maximum price now, and any further advance in prices means restricted consumption.

You men assembled here today, representing one of the greatest industries in the United States, must assist in devising ways and means whereby your supplies can be increased. It is true the good range lands of the West and Southwest are gone, and the big herds of range cattle a thing of the past. This has been gradually going on for years, and practically nothing has been done to offset it. The exports of meats have diminished to a mere handful. Other countries are reaping the benefit of that trade now. Your home trade will follow along the same line if the price of meat is increased much more.

What we want in this country is cheap meat, and plenty of it. The working man must have it, the mothers and the children must have it, if you want to sustain the vitality of the nation.

Must Stimulate Meat Production Here at Home.

The resources of this country are not gone for the raising of livestock. The New England hills, where good grass grows and there is everlasting spring water, and where plenty of shade prevails, can feed thousands of cattle and sheep. The Southern States, with the eradication of the tick, could take care of and feed an unlimited number of cattle and hogs. The growing of corn is an assured crop there, and would soon take the place of cotton if they had cattle to feed it to. The worn-out farms in the Eastern States could be brought back to fertility again if livestock was placed on them. The Middle West, the West, Southwest and Northwest farms could lend a big assistance in replenishing the meat supply.

We then would have better bred and better fed animals, and more pounds to the bullock than in the past. A great many of the cattle that were raised on ranges were bred for speed instead of food. They ate more, and the expense of marketing them was as much as a good "critter."

All this cannot be done in a day. It should have been started some years ago, when the ranges showed the first signs of depletion.

I believe the Government should subsidize the raising of livestock where farmers do not have the means to purchase stock to begin with. New ideas in feeding material are being invented every day, and are proving to be very successful, so that it will not be necessary to have a large amount of land to raise stock on, as was the case formerly. New ideas and a system of education should be invoked in the raising and feeding of livestock. The necessity is upon us now, the invention must follow.

Your own experience has taught you the value of improvements in the manufacture and marketing of your products. A few years ago you were letting gold run down the sewers, or you went to the expense of hauling it to the dump pile. But you woke up. That's what the farmer and stock raiser will have to do.

Caution should be used not to discourage the raising of livestock. Every effort and assistance that is possible should be given to reduce the cost of production. A ready and steady market should prevail, with a reasonable profit to the producer. Let supply and demand rule the market.

I sincerely hope that the farmers will commence raising stock at once of their own volition. The necessity of it is apparent in every direction to

prevent a famine in meat foods. If the present conditions are allowed to continue, national legislation will have to be enacted to compel the resources of this country to be used for the benefit of all the people.

There will be a bill introduced in Congress in the near future to stop the slaughter of calves and breeding cows.

Also, the following resolutions were adopted at our convention, held in Boston last month, and recommended that they be brought before the Congress for passage:

What the Retail Butchers Resolved.

"Resolved, That this Government put a duty of five cents per pound on all meats exported, until we have a supply equal to the demand at reasonable prices.

"Resolved, That the Government subsidize the raising of livestock.

"Resolved, That the Bureau of Animal Industry have the power to confiscate livestock that have disease, wherein the owners of such animals do not give them proper care and thus prevent contagion, or where they do not follow the instructions of the Bureau of Animal Industry.

"Resolved, That liberal appropriations be made to the Agricultural Department to eradicate diseases of livestock.

"Resolved, That the tax be removed from colored oleomargarine.

"Resolved, That the Government allow grazing of cattle on the public lands and forest reserves to their full extent."

The United Master Butchers' Association, through

its officers, wrote letters to every Congressman and United States Senator, asking them to vote for the removal of the tariff on cattle. We also had our representatives appear before the Ways and Means Committee, urging the same issue. While this may only give us temporary relief, it may serve the purpose to partially replenish our depleted condition. It has always been our object to try and increase the supply when a shortage exists.

Your interests and ours are co-ordinate, and you are well aware of what volume means in business.

THE PRESIDENT: The next address will be on "Beef Producing; Will It Pay?" by Mr. M. A. Traylor, vice-president of the National Stock Yards National Bank, National Stock Yards, Illinois.

MR. TRAYLOR: Mr. Chairman and Gentlemen of the American Meat Packers' Association: It is a pleasure to speak to you this afternoon, though not as one of your members. And I confess some temerity in undertaking to address you upon a subject about which it is very probable you have forgotten more than a man of my age and in my business has been able to gather, or will gather in the course of a considerable lifetime. But I have undertaken from the viewpoint of a banker to gather statistics in an effort to establish beyond question of a doubt whether or not there is today in reality a shortage of beef-producing animals, national and worldwide. It has been so often asserted that this is a fact that I hope you will patiently listen to the pictures I have prepared.

BEEF PRODUCING—WILL IT PAY?

By M. A. Traylor, Vice Pres. Nat. Stock Yards National Bank, E. St. Louis

Your esteemed President in his annual address referred to the generally accepted fact of a shortage in the beef supply of our country, offering in that connection some very timely and certainly effective suggestions for correcting existing conditions.

As a banker connected with a live stock bank whose operations are confined very largely to financing the cattle industry, our interest in the question of the supply of cattle, as that supply will be reflected in cattle values thereby directly affecting the value of our securities, and our desire for accurate information on the subject, is most natural.

That you gentlemen should find it worth while to carefully consider the apparent steady decrease in the supply of your raw material is likewise in line with the action of every prudent manufacturer. When we recall the tremendous amount of capital you have invested in your business, the vast army of your employees and the total value of your animal product, it is not surprising that so much of your programme should be given to the discussion of the one question most vitally affecting your future operations.

People Interested in Future of Their Meat Supply.

That the public at large is thoroughly aroused concerning the future of their meat food supply is demonstrated by their keen interest in recent government figures, which indicate a marked shrinkage in the chief source of that supply. The whole question, therefore, is much broader in its general relations to our national welfare than some critics seem to realize; because there are those who have recently written on the subject who declare that it is largely a question of the personal interests of cattlemen, live stock bankers, and the packers, and that most of the agitation is of a selfish nature, if not deliberately for the purpose of influencing pending legislation.

A recent writer declared that much valuable space was being wasted in an effort to prove by statistics that there is not only a national, but a world shortage of live stock, particularly of cattle. We admit that sufficient figures have been quoted from time to time to warrant the assumption that the supply of live stock is not keeping pace with the increase of population, and consequently of consumption and demand.

And while I recognize that statistics are dry and often more tedious, I believe that the gravity of the situation is such as to warrant us in going fully into conditions as disclosed by statistics in an effort to determine definitely and beyond dispute whether or not the generally assumed disparity between supply and demand of beef producing animals actually exists. If my conclusions can be depended upon, the farmer will have an unanswerable argument for producing cattle.

Acting upon this theory, I shall quote the latest

available figures with respect to population and live stock from a world-wide standpoint, treating in turn the conditions of each of the important countries as shown by these statistics. The figures which I shall quote have been gathered very largely from the Annual Year Books of the Department of Agriculture at Washington, from an Abstract of the Census Returns for 1910, and from the International Year Book published by Dodd, Mead & Company. Whether or not these figures are reliable may be an open question, but they seem to be the only statistics available, and in the absence of returns of a more authentic character, may be accepted as a basis for discussion and comparison.

Figures on the World's Cattle Supply.

The first figures published by our Government attempting to gain the world's supply of cattle were issued in 1905, at which time the total number of cattle of all classes in the world was estimated at 404,000,000 head. Figures from the same source and for the same countries issued in 1913 placed the number of cattle at 454,000,000 head, an increase in eight years of 50,000,000, or about 11½%. An estimate of the population of all civilized countries for 1905 placed the total at 1,329,000,000, while the estimate for 1913 from the same source places the population at 1,606,000,000, an increase in ten years of 337,000,000, or about 25%. It is acknowledged that these figures are in many instances estimates, which are perhaps little better than guesses, and indicate only in a general way the trend of population and cattle increase.

The figures for some of the older and more important countries are much more accurate, being in most cases the result of actual tabulation, and we, therefore, give them for such countries as in reality cut any considerable figure in the world's supply, and the world's consumption of beef.

FRANCE, with a population of approximately 40,000,000 in 1911, reported cattle numbering about 14,500,000. This reflected a population gain over 1901 of 640,000, or 2%, and a cattle increase for the same period of 416,000, or 3%. While these figures give the condition for the decade ending in 1910, it is interesting to note that the returns for January 1, 1913, disclosed an actual decrease in the number of cattle since that time.

GERMANY, with a population in 1910 of 85,000,000, reported cattle at that time of about 20,000,000, disclosing a population increase in ten years of 9,000,000, or 16%, and a cattle increase of 825,000, or a little more than 4%.

THE UNITED KINGDOM, with a population in 1910 of 45,000,000, returned cattle of all kinds, 12,000,000, disclosing an increase in population in ten years of 4,000,000, or 10%, and in cattle for the same period of less than 400,000, or not quite 4%.

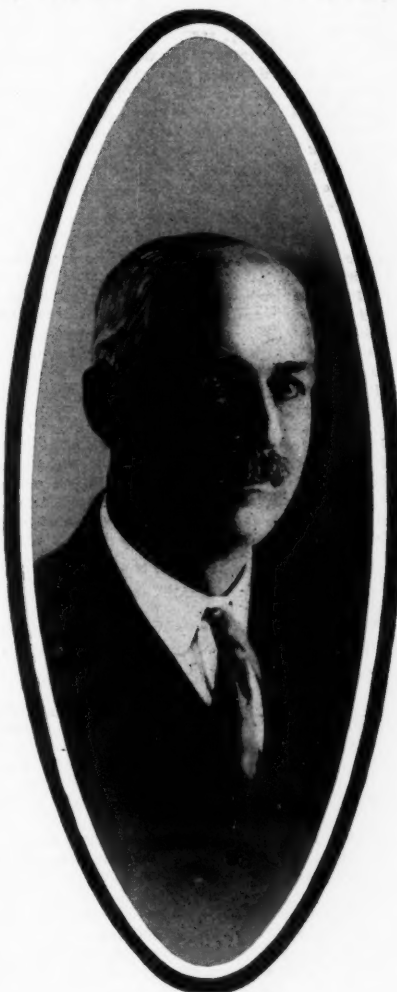
AUSTRIA-HUNGARY had a population in 1910 of 51,000,000, and cattle of 17,700,000, an increase in population in ten years of 4,250,000, or 10%, and a cattle increase of 254,000, or less than 2%. In this connection we might observe that the 1,672,000 calves reported in that country in 1910, more than 575,000 were slaughtered before they were three months old.

EUROPEAN RUSSIA, with an estimated population in 1911 of 120,000,000, reported cattle of 34,500,000, which was a population increase since 1897 of more than 14,000,000, or 14%, while her cattle had decreased in the same period 5,000,000, or about 12%. This particular country being more largely a sheep than cattle country, it is worth while to notice that between 1905 and 1912, her sheep supply decreased more than 12,000,000.

CANADA, with a population in 1911 of 7,204,000, reported cattle of 7,100,000, a population increase in ten years of 1,833,000, or 35%, and a cattle increase for the same period of 1,153,000, or 20%.

Figures for South America and Australia.

BRAZIL, with an estimated population in 1912 of



JOHN T. RUSSELL
(President United Master Butchers of America)
Speaker at the Convention.

20,500,000, had an estimated cattle supply in 1911 of 25,000,000, reflecting a population increase since 1900 of 20%, and a cattle decrease in the same time of more than 20%.

ARGENTINA, whose present population is estimated to be about 7,500,000, has a cattle supply according to the estimate of her Minister of Agriculture of a little more than 29,000,000. Her population increases in the past decade is reasonably placed at 40%, while her cattle supply is admitted to have gained practically nothing in that time, and is known to have decreased in the past two years.

AUSTRALIA, with a population in 1911 of 4,500,000, had cattle at that time of 11,744,000, being an increase in her population in ten years of 682,000, or 18%, and in her cattle supply of a little more than 3,000,000, or about 40%. This country being another where the sheep industry has been of chief import-

ance, it is well to observe that between 1906 and 1911 her sheep supply decreased about 10,000,000.

NEW ZEALAND, with a population in 1911 of 1,500,000, had 2,020,000 cattle, an increase in the ten year period in population of 236,000, or 30%, and in cattle 284,000, or 16%.

Population and Cattle Figures Compared.

Tabulating the percentage of the population and cattle increase in these countries for a period representing approximately ten years, we have the following:

	Population. Increase.	Cattle	
		Increase.	Decrease.
France	2%	3%	
Germany	18%	4%	
United Kingdom	10%	4%	
Austria-Hungary	10%	2%	
European Russia	14%		12%
Canada	35%	20%	
Brazil	20%		20%
Argentina	40%	unchanged	
Australia	18%	40%	
New Zealand	30%	16%	

An average increase in population of 20.5%, and of cattle a fraction more than 8%.

The figures for our own country have been so often quoted that it seems unjustifiable to repeat them here. However, to complete our analysis and at the risk of becoming tedious, the following figures are submitted, showing our exports and imports of cattle and beef products for the twelve months ending June 30, 1907 and 1913:

EXPORTS.

Cattle	1907	423,000 head
Cattle	1913	24,000 head
Beef products (canned beef)	1907	15,000,000 lbs.
Beef products (canned beef)	1913	6,000,000 lbs.
Fresh beef	1907	281,000,000 lbs.
Fresh beef	1913	7,000,000 lbs.
Pickled and other beef	1907	63,000,000 lbs.
Pickled and other beef	1913	25,000,000 lbs.

IMPORTS.

Cattle	1907	32,402 head
Cattle	1913	301,000 head
Hides	1907	134,000,000 lbs.
Hides	1913	268,000,000 lbs.
Cheese and dairy products	1907	33,000,000 lbs.
Cheese and dairy products	1913	50,000,000 lbs.

In addition to these figures, it is now very generally admitted that since 1907 our country has had a population increase of approximately 20%, while there has been at the same time a cattle decrease of more than 30%.

Figures Prove Shortage to Be a Fact.

From this mass of figures a thoughtful citizen must undoubtedly conclude that the asserted shortage of cattle is in reality an indisputable fact. Having reached this conclusion, if we would do our full duty, we must earnestly consider the causes leading up to this state of affairs and intelligently attempt a practical solution of the problem.

Statistics, while interesting and useful, are only the reflection of basic conditions underlying them, and of which they are the result rather than the cause.

If, therefore, we would accomplish beneficent results in the direction of rehabilitating our cattle supply, it is not enough that we should accept the presentation of statistics proving a shortage in that supply.

In addition to doing this, we must convince the producer, or those who should produce cattle, that the future of the industry is sufficiently secure to warrant them in embarking in the enterprise. To do this we must show them that conditions in our own country are such as to warrant our belief that the American demand will be equal to the American supply at present or practically present prices for many years to come, and that in all probability conditions in other countries are such as to preclude the probability of their contributing to the American demand in any appreciable manner for an equally long period.

Foreign Countries Cannot Supply Our Needs.

Briefly touching the situation in the foreign countries mentioned, we find that the annual meat consumption per capita in Germany is estimated at 111 lbs., 40% of which is beef. That the tendency toward beef and beef products as food is increasing, and that her population, as shown, is increasing much more rapidly than her cattle. The same conditions apply to France, where the annual per capita con-

sumption of meat is given at 77 lbs., more than 40% of which is beef.

In Austria-Hungary the per capita consumption of meat is 61 lbs., of which 50% is beef, while in the United Kingdom the per capita consumption of meat is estimated to be 112 lbs., of which more than 50% is beef.

None of this group of countries under the most favorable circumstances can ever possibly become exporters of live cattle, beef, or beef products. On the other hand, according to the best information obtainable, the tendency in these countries is toward an increased consumption of these products, which tendency is forcibly emphasized by the annual increase shown in their importation of these articles.

Among those countries from which our most optimistic critics anticipate a surplus supply of cattle and beef products are Canada, Mexico, Argentina, Brazil, Australia and New Zealand.

We have seen that in Canada the population is increasing much more rapidly than the cattle supply.



M. H. TRAYLOR
(Vice-Pres. Nat. Stock Yards National Bank,
St. Louis)
Speaker at the Convention.

As a matter of fact cattle in that country decreased between January 1st, 1912, and January 1st, this year, more than 50,000 head. The annual consumption of meat per capita in Canada is estimated to be 129 lbs., of which more than 50% is beef, with a tendency toward an increase in this ratio.

We know full well that that country is rapidly being put under cultivation and our experience shows that the spread of agriculture has meant a decrease in live stock production. We know, too, that the climate of that country is not conducive to cheap and extensive live stock operations, and we may confidently assert that if Canada supplies her local demand for several years to come, she will have contributed a total of her cattle supply.

Mexico Must Buy Instead of Sell.

With Mexico the political conditions have been such for the past several years as to render any

accurate estimate of the number of cattle in that troubled republic an impossibility. We know that practically all of the cattle imported by the United States for the past three or four years have come from the ranches of that country. That these imports have not been larger is because of the fact that it has been impossible for the ranch owners of that section to get their stuff gathered and across the border.

Instead of Mexico being a possible source of immediate supply of cattle, a prominent Texas banker, who has assisted in the past year in financing the imports of more than 25,000 cattle from Mexico, states that with normal conditions again prevailing, the ranchmen of that country would need to import 10,000,000 cattle to re-stock their devastated ranches. Where such a number of cattle could be obtained, or can be when peace is restored, is a problem and another factor which assures a heavy demand upon future supplies.

The only country showing an increase of cattle larger than her increase of population and demand is Australia. But the total of the supply of that country, if dumped en masse on the shores of the United States, would not furnish one year's grist for the packers and butchers of this republic. The best they can ever possibly do will be to contribute in a small way to the increasing demands of Continental Europe.

New Zealand, like Australia, is too small a factor to be considered in this connection. Her total supply of cattle of all classes not being sufficient, were they all available, to re-stock the barren ranches of Texas.

The conditions of Brazil, according to the latest information from that country, are certainly sufficiently discouraging to satisfy even the most pessimistic. If estimates are correct, her cattle are decreasing so rapidly that to supply her own demand, which is increasing because of increased population and agricultural development, it will be necessary ere long for her to procure her supply from other sources.

Argentina Offers No Hope.

Argentina, the only rival of the United States as a cattle producing country, furnishes statistics which should satisfy the most timid that no fear need be entertained as to imports of cattle or beef products from that country for many years.

The most optimistic do not claim that there has been any increase of consequence in Argentina's cattle supply for the past five years. At the same time they must admit that the demands upon her for cattle and beef products have grown in this period by leaps and bounds. Aside from the foot and mouth disease, drouth and other conditions of this character which have tended to prevent an increase in her supply, it may be worth while to note that the total of her area under agriculture in 1912 was estimated at 50,000,000 acres, while in 1902 the total in cultivation was a little less than 13,000,000 acres. Another instance of increasing agriculture decreasing live stock.

Admitting that Argentina has a supply of cattle at present far exceeding her demands for local consumption, we hesitate to believe that she will ever produce a supply which will exceed local requirements and the demands being made upon her by Continental Europe and the other meat-eating nations of the world.

In view of these conditions abroad, if we can convince the American farmer and the American banker that the demand of the American consumer will continue its past record of increase, we should have no trouble in inducing the former to embark in the business, and the latter to undertake the financing of the venture.

The causes that have contributed to the shortage of cattle in our own country are many and varied. In the great Southwest the advent of the man with the plow has undoubtedly been the chief factor in the depletion of the range herds of that section. Aiding and abetting the farmer in his conquest of the cattle-men has been the blizzard of the Panhandle and the Northwest, and the drouth and tick of the south.

Causes of Our Own Shortage at Home.

Accounting for the decreasing supply throughout our central states, or the great corn belt, is a different proposition. That the cattle on the farms of Iowa, Illinois, Missouri and Kansas should show an annual decrease is almost unbelievable, yet true, according to the census returns as reported in the Year Book of the Department of Agriculture in 1912.

Whether this decrease is due to the unusual high prices prevailing for all classes of cattle, or whether it results from an inclination on the part of our citizenship to sell off their surplus supply of those animals whose presence on the farm require much

time and attention, I will not undertake to say. That in part it may be charged to the operations of our vicious tenant system is undoubtedly true. The curse of this system as it influences the happiness and prosperity, the hopes and ambitions of thousands of our citizens is little realized. Its blighting effects upon agriculture is splendidly portrayed by Mr. Dolson in his "The Rented Farm," when he says:

The fields, where record wheat once grew,
Are foul with briars and goldenrod,
Sumac and ivy. There a few
Lean cattle bite the scanty sod—
Where corn once ripened, thistles nod.

Fences are falling, and the sad
Old barn which once was filled with sheaves,
Where I have played, a little lad,
Shows sagging roof with moss-grown eaves—
Its driveway choked with weeds and leaves.

The simple, quiet country life
Our fathers loved no longer seems
To please our young, whose minds are rife
With thoughts of vast commercial schemes,
Where sudden wealth absorbs their dreams.

Thus do they leave the land to be
Half-tilled by those whose only care
Is present gain—resigned to see
Their blithright useless, brown and bare
Results confront us everywhere.

The fact of the shortage of cattle in these corn growing states is only mentioned to illustrate that the entire shortage of the country is not confined to any particular section, nor to any especial influence either of climatic conditions or market tendencies, but is uniform throughout our country and must reflect an underlying condition to which the entire shortage may reasonably be attributed.

Whether I see this condition aright or not is of little moment, and when I say that in my judgment, following the disappearance of the range herds and the new conditions following the agricultural developments of the west, which has been the great fountain of feeder cattle supply, we have actually and in stern reality year by year eaten up our supply of cattle. I offer as proof of my statement the following:

Proof of Our Famine Situation.

According to the last federal census returns, we had January 1st, 1910, 61,000,000 cattle of all classes. Of this number 20,000,000 were cows and heifers over fifteen and one-half months old kept for milk purposes. 12,000,000 were cows and heifers over fifteen months old not kept for milk purposes, leaving 29,000,000 head of all kinds of other cattle. According to the census returns, we slaughtered for the twelve months ending June 30, 1910, 14,250,000 head of cattle, which would reduce that supply to 14,750,000 head. Estimating that there were bred of the 32,000,000 head of cows and heifers of all kinds a total of 25,000,000, which in my judgment is most liberal, and that there was a calf crop from this source of 75%, or 18,750,000 calves, of which (according to statistics there were slaughtered 6,950,000 head) we would have a net gain to add to our supply for future years of 11,800,000, which would give us January 1st, 1911, a total supply of all kinds of cattle, except cows, of 26,550,000 head.

For the years ending June 30th, 1911, 1912 and 1913, we killed respectively 13,900,000, 13,450,000 and 12,800,000 cattle. Granting that during these three years the same number of cows yielded the same return in calves, we would gain 56,250,000 calves, of which we killed for 1911, 1912 and 1913 respectively 6,730,000, 6,600,000 and 6,300,000, or a total of 19,630,000, leaving us a net gain in production of 36,300,000 plus the supply on hand January 1, 1911, equalling 62,910,000, from which we deduct the total slaughtering of 40,150,000, leaving us in 1913—22,760,000 head of cattle of all classes, except cows, showing a decrease in three years of the beef cattle supply from actual slaughtering of 6,240,000 head, during which short space our population has increased more than 5,000,000 people.

Proving these figures, which are given in round numbers only, we have but to add to this supply the 12,000,000 head of cows not kept for dairy purposes and the total is brought up to practically the 36,000,000 head estimated by the Government as being on hand January 1st of this year.

We May Be Driven to Horse Meat.

To some these figures may not be conclusive, but to me the whole proposition of a live stock shortage, stripped of all the whys and wherefores, comes down to the single and simple proposition that our consumption so far exceeds our production that if left alone we will in the course of a very few years reach the point where, like our French and German cousins, we will be compelled to call upon old Dobbin for a goodly portion of meat supply.

An indication of the fact that the supply is not now equal to the demand is shown by the fact that our slaughtering for the past three years have shown a marked decrease. This is not because we have ceased to export beef products, leaving our output for home consumption, but indicates that the price has reached a level prohibitive to many who would otherwise be beef consumers if the supply was sufficient to put the product within their reach.

As a contributing cause of this rapidly increasing demand, it is worth while to recall that the census of 1910 disclosed a population increase for the past decade of approximately 16,000,000 people, or 21%. You may also remember that of this total increase more than 11,000,000 was shown to have taken place in cities and towns having a population of more than 2,500, while 3.8% of the remaining occurred in cities and towns of less than 2,500, showing only a slight increase in the population of the rural districts.

As a matter of fact the ratio of our population in-



GEORGE ZEHLE
(Zehler Provision Co., Cincinnati, O.)
Treasurer-elect of the Association.

crease in town and country is almost three to one—three consumers to one producer. Is it not plausible to assume that the concentration of our population in the smaller cities and towns and the great industrial centers is the cause in a large measure of our decreasing cattle production and our increasing beef demand? Proving this assumption, let me remind you that to give the 13,000,000 souls added to our town and city population in the ten years ending in 1910 their allotted portion of beef, would require the total of 1,800,000 head of steers weighing on the hoof 1,000 lbs. each.

Some Reasons Why We Raise Less Beef.

The effect of the concentration of our citizens in industrial centers and their employment in manufacturing enterprises, thereby increasing the volume of our manufactured product and the annual consumption of food stuffs is strikingly illustrated by the fact that while in 1897 our exports of food stuffs amounted in value to one-half of our total exports, last year they amounted to less than one-fifth, notwithstanding which the value of our exports of food stuffs sixteen years ago was only 310,000,000, while last year it was considerably more than a billion dollars.

The increasing tendency of our population from the farm toward the city means undoubtedly much more than many of us have discovered when casually considering it, especially in my judgment, has it had much to do with the increased demand for beef and beef products. Some of you perhaps were raised on a farm. If so, you can appreciate the difference between the diet of the average country and city dweller, particularly as it affects their meat consuming proclivities.

My personal experience of more than twenty years on a farm leads me to say without fear of contradiction that the farmers of the country are not its beef eaters. In my home community fifteen years ago, and today, the killing of a beef animal is a neighborhood event. Our only butcher for this class of stuff was a Campbellite preacher and blacksmith (peace to his ashes), whose habit it was, possibly once a month, to mount the hurricane deck of his old roan and make a tour of inquiry to all the neighbors, advising them that he expected to kill a steer on a certain day, and asking how much of its carcass they desired.

What was and is true of that neighborhood is true, in my opinion, of most of the rural communities of this country. The meat of the farmer and his family is bacon, and this is clearly proven by the census returns of animals slaughtered on the farms of the country, which shows that while the number of cattle so slaughtered is too small to be estimated, almost two-fifths of the entire number of hogs slaughtered in the United States are killed on the farms.

The transition of John, Will and Jim from "cottonade" and the plow line to the blue uniform and the bell cord, means more than that these worthy sons have ceased to be producers of food materials, becoming instead consumers; it means that they have forsaken the bacon and beans of their more unsophisticated days for the beef and potatoes of cosmopolitan existence.

Is it not possible that this migration from country to city furnishes some measure of explanation for the present high cost of beef, and is it too much to argue that although the per capita of cattle supply should be brought back to what it was ten years ago, that the increase of the demand from American consumers would be sufficient to warrant high and exceedingly satisfactory prices for cattle for all time to come?

To Assure Beef Producer of a Market.

To assure the future producer of beef cattle, however, that conditions are changing and that in the future the demand for his surplus product shall not come exclusively from the cities, I might mention that in some of our more progressive states, especially in Iowa, what is known as "beef rings" are being formed, consisting of twelve to twenty families who on the co-operative plan are slaughtering for their own consumption many beef animals every year.

This system of encouraging production by increasing the demand in the rural communities is being vigorously advocated by experts in that State and in the not far distant future will mean a tremendous addition to its annual beef consumption.

In this connection it will not do to overlook the influence of our new friend, the automobile. In addition to the many other directions in which its forces are directed, it is being utilized by hundreds of farmers living near the towns as a market vehicle. I am told that in Iowa alone many smokehouses have been abandoned to the bats and the mice, because their owners no longer manufacture their meat supply, preferring to obtain it from the butcher in their neighboring town, which means that instead of using pork and hog products, they are buying beef.

Must Convince the Farmer and Banker.

Considering this entire proposition, I am not a pessimist. I believe firmly that when the American farmer and the American banker have once been convinced that there is a satisfactory future for the cattle industry, they will so combine their forces in its development as to assure a supply sufficient at least to meet the demand of American consumption.

If they believe conditions exist as I have stated; if they still have faith in the laws of supply and demand in the regulating of prices; if they are content to embark upon an enterprise promising undoubtedly a fair remuneration for their money and their labor, then the day is not far distant when instead of there being an average of eight to ten head of cattle on

every farm of a great state like Illinois, there will be a carload or more.

When this time arrives, the future fertility of the soil will be so well assured, and a steady income for the farmer so certain, that the blight of a drouth or the plague of the bugs will not disturb his peace nor his prosperity.

The American packer will receive a uniform abundant supply of raw material for his

ADVANTAGES OF CONCRETE CONSTRUCTION FOR PACKING HOUSES

By R. H. Tait, St. Louis, Mo.

The modern packing house must have embodied in it the following requirements:

- Cleanliness;
- Arrangement for economical handling of the product;
- Permanent construction;
- Ability to resist fire; and
- Lowest cost to meet these requirements.

All of these are best met in buildings of reinforced concrete construction.

Cleanliness is insured by an abundant supply of fresh water, both cold and hot, arrangement for perfect drainage, ventilation and sunlight, and absolute freedom from places in which vermin can breed and exist.

The abundant use of hot and cold water in the packing house is indicated as a matter of necessity, but its proper use is dependent on the distribution of the points of supply about the building, and the construction of the building to permit its abundant use without danger to the building or to stored products in the building. The proper distribution of the points of supply is a mechanical feature which can be regulated in any type of building.

Floors That Best Stand the Use of Water.

To be able to use the water in sufficient quantities to gain the desired end necessitates water-proof floors and walls, proper fall in floors and an adequate drainage system. Wooden floors subjected to wet and dry conditions, alternately, deteriorate rapidly and leak, prohibiting the proper use of water and therefore becoming unsanitary.

Concrete, asphalt or brick top floors on wood construction have proved unsatisfactory on account of the shrinkage and settlement of the wood construction, causing the top floor to crack and leak. Of these, the best success has been obtained with the asphalt floors. Reinforced concrete floors can be made water-proof and can be finished with either dust-proof cement finish, asphalt or vitrified brick, giving a water-proof floor not subject to settlement or cracking, on account of the permanency of the concrete base.

Light and Ventilation Advantages of Concrete Buildings.

Ventilation and sunlight, indispensable in the modern packing house, are more easily obtained in the reinforced concrete building than in the ordinary brick and frame building, which ordinarily has not to exceed 25 or 30 per cent. of wall opening. The normal wall openings in a concrete structure may run from 50 to 85 per cent. This not only gives corresponding opportunity for ventilation and light, but will save lighting expense and make for general efficiency and cleanliness among the employees.

Concrete construction lends itself particularly well to the requirement that the inside surfaces present a condition of absolute smoothness and comparative freedom from cracks or joints, thereby presenting surfaces for ceilings, walls, columns and floors which can be readily cleaned. Wood, even though constructed as smoothly as possible, is absorbent and subject to decay.

Owing to possibility of constructing with concrete a building free from hollow spaces, cracks and crevices which might harbor vermin, this disagreeable feature of the wood-constructed building can be eliminated. This not only holds in the building proper, but as to all subdividing partitions, as these can be made of solid brick or concrete in the concrete building, which they could not be in the wood-constructed building, on account of unequal shrinkage and settlement.

The arrangement for economical handling of the product does not come within the scope of this paper, as it can be arranged equally well with either wood or concrete construction.

Permanency of Construction a Great Advantage.

Permanency of construction is one of the strongest

factory, and the American laborer and wage-earner will again eat his beefsteak in quiet and contentment. (Applause.)

THE PRESIDENT: Mr. R. H. Tait will try and show you the advantages of concrete construction for packinghouses. Mr. Tait is of the Tait-Nordmeyer Engineering Company.

MR. TAIT: Gentlemen of the American Meat Packers' Association:

arguments in favor of concrete. There is no room for any doubt as to the permanency of the composition of materials making up concrete, as has been demonstrated by its use from the time of the Romans. In place of deteriorating, it improves with age.

The possibilities of the deterioration of reinforcing steel embedded in concrete has been the subject for exhaustive tests. It has been proved that concrete protects the reinforcement from corrosion under the most severe conditions. Hundreds of tests have been made in this country, and the results obtained are considered by engineers as conclusive. The Prussian government has conducted a series of tests covering a number of years, with the result that they have pronounced the reinforcement, properly placed, secure from rust. The heavy repair expense in buildings constructed with wood posts, girders, joists and floors is only too well-known to every packing house owner.

Concrete as a Protection Against Fire.

From the nature of the materials entering into concrete construction, it is perfectly evident that the fire-resisting properties are superior to any other type of construction. This is evident by experience in fires that have occurred in buildings of this nature. Buildings in which the entire contents have been burned out showed that the concrete surfaces were in practically perfect condition after the fire, the only signs of damage being a slight scaling of the concrete surfaces, which could be readily repaired by a few dollars' expense for plastering. Great fires, such as occurred at Baltimore and San Francisco, demonstrated the fire-resisting qualities of concrete construction to such an extent that many of the buildings when rebuilt were built of reinforced concrete.

The result of the fireproofness of the concrete is that the insurance companies quote the lowest rate on concrete buildings. Fire hazard experts consulted by the author are of the opinion that there are only two types of building which may be considered as fireproof: The reinforced concrete building and the steel building fireproofed with concrete. The fireproofing on steel they do not consider as effective as concrete fireproofing, on account of the tile cracking and falling off, due to expansion when heated.

It is impossible to state an exact rate of insurance covering all conditions, for the purpose of comparing the rate on brick and lumber construction with concrete construction, on account of the rates being based on local and surrounding conditions. But in a general way, from best information obtainable at this time, the rate for reinforced concrete construction is from 25 per cent. to 50 per cent. lower than for brick and wood construction, depending on the percentage of the full value for which insurance is carried. The advantage of decreased insurance rate holds not only for the building, but also for the contents.

It might here be noted as an item of interest that the Committee on Insurance of the National Association of Cement Users has conducted an investigation, with the result that it was found as high as 26 per cent. of some 255 owners of concrete buildings carried no insurance on their buildings, and that a large per cent. of those who carried insurance did so only because of mortgages or loans requiring them to do so.

The Cost of Concrete Construction.

The initial cost of the building is an apparent cost by which the owner is too frequently misled. The ultimate cost—in which are considered the initial cost, interest on money invested, taxes, insurance, depreciation and repairs—is the proper cost which should be kept in view.

As a matter of convenient comparison, a plant having a capacity for about 300 hogs per day will be considered. The brick and wood-constructed building, including insulation, was contracted for at

\$42,630. The same buildings erected of reinforced concrete, including insulation, would have cost approximately \$50,000. This is an increase in initial cost of about \$7,370, or 16.8 per cent. The ultimate annual cost, in which are considered the items previously referred to, is given in the following table:

	Brick and wood	Reinforced concrete
Interest at 6%.....	\$42,630.00	\$50,000.00
Taxes 1%	\$2,557.80	\$3,000.00
Additional insurance at 25c. per \$100 on brick or wood building	426.30	500.00
Additional insurance at 25c. per \$100 on \$150,000 contents in wood buildings..	108.00	
Depreciation and repairs, at 2%	375.00	
	852.60 at ¼ %	125.00
	\$4,319.70	\$3,625.00



R. H. TAIT

(Tait-Nordmeyer Engineering Co., St. Louis, Mo.)
Speaker at the Convention.

According to these figures, the annual charge on the reinforced concrete building is found to be \$694.70 less than on the brick and wood building. This represents interest at 6 per cent. on \$11,578.25, and indicates that the concrete building could have cost that much more than the brick and wood building to place them on an equal basis in regard to the ultimate cost, or that the concrete building could have cost 27.2 per cent. more than the brick and wood-constructed building.

On an average, varying with conditions and locality, it will be found that reinforced concrete buildings will cost between 10 per cent. and 25 per cent. more than brick and wood-constructed buildings. From the above, it will be seen that the ultimate cost of the reinforced concrete building is less than for the brick and wood construction, to say nothing of the benefits to be derived from increased cleanliness, freedom from inconvenience in making repairs, and increased fire protection.

All the advantages stated for the reinforced concrete building as against the brick and wood construction will apply to the steel-constructed building fireproofed with concrete. It will be found, however, that the cost of the steel building properly fireproofed will run about 10 per cent. higher than the reinforced concrete building.

Objections to Concrete Construction Answered.

Objections most commonly advanced to concrete construction are: Inconvenience of making future additions, dusting of floors, want of flexibility in installing and securing equipment. All of those objections are overcome in a building properly designed and built.

All buildings, of whatever type of construction, should be designed with a view to additions or possible changes due to increasing demands of the business, and an engineer in designing a building should keep such possibilities in mind.

Dust of concrete floors has been overcome by proper construction and finish. There seems considerable

for stating that the reinforced concrete building has the following points of superiority on any other construction for packing houses: Most sanitary, durable, fireproof and lowest ultimate cost.

Convention Committees Appointed.

THE SECRETARY: The Chair desires to announce that the paper by Mr. Poole on "The Future Meat Supply of North America" will be read at the session tomorrow afternoon. And that the one on "Packinghouse Fire Insurance," by Mr. Albert Blauvelt, will be read Wednesday afternoon.

The Chair also desires to announce the following convention committees:

Nominating Committee: Charles Rohe, New York; B. W. Corkran, Jr., Baltimore; C. E. Roth, Cincinnati; G. A. Hormel, Austin, Minn.

Resolution Committee: Charles H. Ogden, Pittsburgh; F. T. Fuller, Peoria; Jacob E. Decker, Mason City, Iowa.

Auditing Committee: Fred Krey, St. Louis; J. F. Shafer, Baltimore; D. V. Colbert, Chicago.

Obituary Committee: Conrad Yeager, Pittsburgh; S. E. McPartlin, Chicago; F. G. Betz, Toledo.

THE PRESIDENT: A motion to adjourn is in order. (Which said motion was duly seconded and carried.)

The meeting will stand adjourned until tomorrow at 2:30 p. m. at the La Salle Hotel.

SECOND SESSION

Tuesday, September 23, 2:30 p. m.

This session was held at Hotel La Salle, Chicago, with the "Food Section" of the Third International Congress of Refrigeration, President Gustav Bischoff of the A. M. P. A. presiding.

THE PRESIDENT: This meeting will please come to order.

Gentlemen of the International Congress of Refrigeration: It gives me great pleasure to welcome you in the name of the American Meat Packers' Association.

I have been closely connected with the meat industry of this country for the past fifty years. It has been more than forty-three years ago that I entered the business for myself. It was in a very small, modest way that I started. In those days the butcher would kill his beef, sheep, calves and hogs in the evening. In order to keep it away from the flies and the heat of the day, we would start out very early in the morning, between the hours of one and four, just as to the amount of work we had to do. We would bring our beef, freshly killed, and sheep, calves and pork to market, all of it being in an unrefrigerated state, at most times still containing most of the animal heat. It certainly took a good meat cutter to cut this warm, quivering meat into steaks, chops, etc., and it was not until years later that refrigeration came to our aid and brought about an entire change in the business.

As in a good many other changes, we had

a great deal of prejudice to overcome in introducing refrigerated meats. When we offered refrigerated steak or roasts of beef or chops to our customers, especially in hot weather, this refrigerated meat would look sweaty or pale, and the customer would say: "Butcher, I don't like this kind of meat; haven't you any meat that was freshly killed last night? I would rather have this fresh meat, as I am afraid this other meat is not good."

It took some years before we could remove this prejudice and teach the customer that refrigerated meat was the better of the two, more tender, more wholesome and healthier. When once people were educated, there was no further trouble, and nobody wanted to buy any more freshly-killed meats.

Refrigeration in the Packing Industry.

Refrigeration has done wonders for the meat packing industry. It has enabled the packer to take care not only of the daily consumption, but also the surplus livestock that came to the stock yards from time to time. This surplus is usually bought by the large packers and the yards cleaned up every day. The surplus meat of these animals is usually put in the freezer and held until such time as there is a scarcity or a better demand for this kind of meat on the market, thereby helping to equalize prices during the time of scarcity, which ultimately means a large saving to the consumer.

Refrigeration has also enabled the packers to cure their hams, bacon, etc., at all times of the year, thereby enabling them to sell these goods for less than they could be sold at the time when hams, bacon, etc., could be only cured during the winter months, and then were smoked and canvassed and sold during the summer months at prices that only the rich could afford to pay.

In conclusion, I will say refrigeration has made the American meat industry what it is today—the greatest in the world, and I might add—the best, and I feel that we are deeply indebted to the gentlemen who, by their genius and skill, invented the refrigerating machines which are now used all over the world. Without refrigeration there would be no comfort in most families, as ice that used to be a luxury is now a necessity in every home.

I thank you, gentlemen. (Applause.)

MR. SWITZLER (Chairman of Food Section): Following the custom of our meetings, after the reading of papers, if members have any comment, question or criticism to make, Mr. Bischoff, upon the paper just read, this meeting is open for that purpose; and I will ask those present if there is anything they would like to say. If not, we will proceed with the programme.

The next paper will be by Mr. A. W. Pearse, editor of The Pastoral Review and Australian Meat Trades Journal.

MR. PEARSE: Gentlemen of the American Meat Packers' Association and the World's Congress:

AUSTRALIA AND NEW ZEALAND AS SOURCES OF MEAT SUPPLY

By A. W. Pearse, Editor "The Pastoral Review" and "Australian Meat Trades' Journal"

J. FRED KREY
(Krey Packing Co., St. Louis, Mo.)
Vice-President-elect of the Association.

Diversity of opinion among packing house men as to whether concrete, asphalt or vitrified brick is best for floors. The concrete sub-structure offers the best possible base for any of these finishes.

We have never found the changing of location or placing new machinery in concrete buildings to present difficulties not met with in other types of building. On account of the absence of vibration in the building there is no danger of machinery getting out of line. The location of machinery being predetermined, hanger sockets or bolts can be placed in the concrete forms before concrete is poured, then to these the equipment can be attached. Where there is a possibility of changes, then hangers or bolts can be placed throughout the building to facilitate these changes. Even if these provisions do not fit the case, or have not been made, it is an easy matter to place expansion bolts where required.

Summing up the above points, we find good reason

In view of the enormous increase in the population of North America and the corresponding shortage of fresh meat, a few words on two sources of supply, as indicated by the title of this paper, should be of interest to this association in particular and the United States in general.

Beef.

Taking beef first. At the present time the number of cattle in Australia of all kinds, including dairy cattle, amounts to 11,712,207.

The Australian State where most of these cattle are is Queensland, in the north, where 5,200,000, mostly beef cattle, are to be found. These are principally Durhams and Herefords, with a sprinkling of Devons and other breeds here and there, and naturally a large number of crossbreds. The country extends from latitude 28 degrees south to within 11 degrees of the equator, and in normal seasons is an ideal cattle country. The numbers have for

many years been about the same. For instance, in 1890 Queensland had 5,558,264 head; those dwindled down through drought and tick losses to 2,481,717 head in 1903, but since then a gradual rise has taken place, until at the end of last year it was estimated that there were 5,200,000 in the State.

Frozen Beef.

The amount of frozen beef exported for 1912 was 978,825 quarters. The average deadweight for a four-year-old Queensland bullock is, roughly, 670 lbs.; cows, 520 lbs. There are still large possibilities in that State and in the northern territory for a large increase in supplies, and as most of the cattle in the tick districts are now immune against the red water disease, and as artesian water has minimized drought losses, there is no reason to doubt that increases will be seen.

For dealing with the present number of cattle there are eight freezing works, with a combined



capacity of 2,300 cattle per day, but several of these works are being enlarged. A very fine works with a capacity of 400 head of cattle per day is to be erected on the Brisbane River for an American firm, the Australian Meat Export Company. Most of the works are near the port of shipment. The refrigerating machinery in these works is either Linde, Hercules, Haslam or York.

In most of the works a packing plant is in operation, and there is a large annual export of canned beef, amounting last year to the value of £21,630,000 from all Australia. Frozen meat is shipped from Brisbane, Rockhampton, Gladstone, Bowen and Townsville to various destinations, but mostly to Great Britain. A regular supply, however, is sent to Manila for the United States Government. It amounts to about 70,000 quarters per annum. The killing season generally runs from April to October.

Chilled Beef.

Three attempts have been made to ship chilled beef from Queensland to London and, although the meat was landed satisfactorily, it was not a financial success for several reasons. Only one vessel had been fitted up to carry chilled meat, and, as she only made the round trip in five months, a trade could not be successfully built up. Then again, cattle owners naturally expected to receive more money for the special quality of beef required, and this took away any profit there might have been in the business. Again, the quality of beef required for chilling was difficult to obtain.

Prices.

The price of Queensland cattle ranged during recent years from \$4.08 to \$5.04 per 100 lbs. deadweight for bullocks, and from \$3.00 to \$4.32 for cows, according to condition and quality, delivered at the works. The total cost of freezing, shipping and insurance is about 2½ cents per lb. The price of Australian frozen ox beef in Great Britain has over a period of some years averaged 8½ cents per lb. for sides.

On these figures it is impossible to say what the net cost of the meat is, as this depends on the prices realized for the hides and by-products.

Meat Production in Other Australian States.

The number of cattle in the other States is limited, a large proportion being dairy cattle, and the local demand almost covers all the surplus. With the exception of Western Australia, there is very little chance of any increase in beef cattle, for the reason that in the other parts sheep, dairying and agriculture are found to be more profitable. The exports of beef from other States than Queensland were in all only 58,000 quarters during the 1912 season.

New Zealand Meat Production.

New Zealand at the last census possessed 2,020,000 cattle, a very large proportion of these being dairy cattle. Her total export of beef last year, to December, amounted to 149,000 quarters, and there is little probability of that country ever being a source of a substantial beef supply.

Mutton in Queensland.

With regard to mutton and lamb, matters are quite different. The Queensland works at present have a killing and freezing capacity of 17,000 carcasses

per day, and in another year this will be materially increased.

The largest proportion of the sheep at present are Merinos, but on the coast and in the southern districts development is fast taking place toward the crossbred, Lincoln-Merino, Shropshire-Merino, Romney-Merino and Leicester-Merino. It is estimated that the State possesses 20,250,000 sheep, and her export for 1912 of sheep and lambs amounted to 393,730 carcasses.

The average deadweight of the sheep was about 40 lbs. for wethers and 34 lbs. for ewes. The average

price for these, given by one of the largest works last year, was for ewes and wethers mixed, good, bad and indifferent, with from little wool to a full fleece, \$2.18 per head.

Adding to the price paid for the sheep all expenses of treatment, and deducting the value of the skin and offal, the cost of a carcass of mutton on the hooks at one of the southern works, for instance, is 4 cents per lb. The freight to the wharf is .08 of a cent per lb; ocean freight, insurance and selling charges in London are 2.25 cents per lb.; or a total cost of 6.33 cents per lb. As the average price in Smithfield Market, London, for last year was 6.50 cents per lb., the profit would work out at .17 of a cent per lb.

Mutton in New South Wales.

In New South Wales there are twelve freezing works with a capacity for the killing and freezing of 28,000 sheep and lambs per day. These are mostly adjacent to the coast and port of shipment. During 1912 the State shipped 1,065,255 sheep and lambs.

The price given for the sheep ranged from \$2.16 to \$3.36 per head, and the price in London for Australian mutton last year averaged about 6.50 cents per lb. The price given for the lambs ranged from \$2.88 to \$3.36 per head, and the price in London from 9.50 cents to 11 cents per lb.

At the commencement of last year the State suffered from a bad drought and the losses of sheep were very heavy. However, a fine season since has put matters right again. The State possessed on December 31 last 39,436,000 sheep. The high water mark was in 1891 when it ran 63,000,000. The spread of dairying and agriculture has in some measure been responsible for the lesser number, but the long drought which ended in 1902 was the prime factor, the number being reduced to under 27,000,000. Since then there has been a gradual increase until last year, when heavy losses were experienced. If good seasons continue, the possibilities are for a further increase. Crossbred sheep are fast taking the place of Merinos in suitable country.

Mutton in Victoria.

Victoria possesses 11,892,000 sheep. Her exports for 1912 amounted to 1,418,559 sheep and lambs, a proportion of them coming from New South Wales across the border. This State, which is in a cooler climate, has a much larger proportion of crossbreds. There are eleven freezing works, with a capacity of 33,000 sheep and lambs per day.

Mutton in South Australia.

South Australia has only one, the State Freezing Works, and, as is usual under State management, where votes are a factor, such industries are not a success, so that the meat export of that State is in a stagnant condition, the total shipments for 1912 being only 168,553 carcasses of sheep and lambs. The State possesses 5,481,000 sheep.

Other States in Australia.

Western Australia and Tasmania need not be reckoned with at present. The former State should be able shortly to ship some small numbers of sheep and lambs, but for many years it will only be very small. From the north she has been shipping live cattle to Manila for the American troops, but at



A. W. FEARSE
(Editor "The Pastoral Review," Australia)
Speaker at the Convention.

AUSTRALIAN FROZEN MEAT EXPORTS. TO UNITED KINGDOM.

New South Wales.				Victoria.			Queensland.			South Australia.		TOTAL.		
Period.	Mutton.	Lamb.	Beef.	Mutton.	Lamb.	Beef.	Mutton.	Lamb.	Beef.	Mutton.	Lamb.	Mutton.	Lamb.	Beef.
	Carcasses.	Carcasses.	Quarters.	Carcasses.	Carcasses.	Quarters.	Carcasses.	Carcasses.	Quarters.	Carcasses.	Carcasses.	Carcasses.	Carcasses.	Quarters.
1910.....	1,541,380	424,374	36,068	492,492	1,041,187	16,316	785,928	15,971	473,371	93,014	180,510	2,912,823	1,662,042	526,755
1911.....	1,034,165	301,279	20,449	597,894	985,347	3,157	194,700	10,394	523,893	53,710	141,069	1,880,469	1,438,080	547,499
1912.....	682,976	265,589	19,101	609,217	768,020	3,848	350,502	12,798	754,163	61,439	105,188	1,704,134	1,171,595	777,114

TO SOUTH AFRICA.

New South Wales.				Victoria.			Queensland.			South Australia.		TOTAL.		
Period.	Mutton.	Lamb.	Beef.	Mutton.	Lamb.	Beef.	Mutton.	Lamb.	Beef.	Mutton.	Lamb.	Mutton.	Lamb.	Beef.
	Carcasses.	Carcasses.	Quarters.	Carcasses.	Carcasses.	Quarters.	Carcasses.	Carcasses.	Quarters.	Carcasses.	Carcasses.	Carcasses.	Carcasses.	Quarters.
1910.....	58,318	3,648	2,406	4,636	575	2,382	6,202	.....	15,201	700	300	60,950	4,523	19,988
1911.....	37,735	2,691	9,992	22,958	1,615	10,739	6,098	.....	32,608	500	.....	67,291	4,306	53,429
1912.....	16,559	689	4,860	14,099	1,700	16,521	12,216	.....	42,681	915	.....	43,789	2,398	64,062

TO ALL OTHER PORTS.

New South Wales.				Victoria.			Queensland.			South Australia.		TOTAL.		
Period.	Mutton.	Lamb.	Beef.	Mutton.	Lamb.	Beef.	Mutton.	Lamb.	Beef.	Mutton.	Lamb.	Mutton.	Lamb.	Beef.
	Carcasses.	Carcasses.	Quarters.	Carcasses.	Carcasses.	Quarters.	Carcasses.	Carcasses.	Quarters.	Carcasses.	Carcasses.	Carcasses.	Carcasses.	Quarters.
1910.....	66,421	8,577	831	1,762	2,957	167	41,319	5,722	91,963	.....	.....	109,502	17,256	92,961
1911.....	91,725	16,010	1,514	3,275	2,064	.....	19,619	3,290	113,153	.....	972	114,619	22,338	114,687
1912.....	79,331	20,141	12,413	4,630	884	302	14,845	3,359	123,934	.....	1,011	98,806	25,395	136,649

(Including in Mediterranean, Philippine Islands, Canada, etc.)

present this trade is in abeyance. Here again government interference with the meat trade will make for stagnation.

New Zealand Mutton and Lamb.

This ideal little country surprises the world with its mutton and lamb shipments, both for quantity and quality. The dominion, as it is called, only possesses 23,750,000 sheep, yet every year is able to ship to Great Britain nearly 2,000,000 sheep and 3,400,000 lambs of high quality.

There exist twenty-two freezing works, with a killing and freezing capacity of 82,000 sheep and lambs per day. The season generally commences in December and ends in July, after which for a few months only limited supplies are sent away. The whole trade, with the exception of a little to North America, is at present with Great Britain, and New Zealand frozen mutton and lamb is far and away the best on the market for quality.

The price for crossbred sheep varies, but is generally about \$4.32 for sheep and \$3.72 for lambs. The London price under normal conditions is anything from 7 cents to 9 cents per lb. for mutton, and from 10 cents to 12 cents per lb. for lamb.

Taking the particulars recently published by the government, it looks as if New Zealand were approaching her maximum export of frozen meat—not because the country is near the limit of its stock carrying capacity, for there are still very large areas of bush and fern country to bring in, but rather because of the great expansion of the dairying industry, and in a lesser degree the increased local consumption by the increasing population.

The present price of fattening land leaves little for a sheep farmer pure and simple, therefore the dairy farmer is replacing him. It may be accepted therefore that the present shipment of meat is about high water mark.

Australasia as a Whole.

Taken as a whole, Australia and New Zealand can be looked to by America for supplies of meat as follows: To Queensland and the north of Western Australia and the northern territory for frozen beef—and when the United States regulation against formaldehyde is repealed, for chilled beef preserved by the Linsley or similar processes—and to New South Wales, Victoria and New Zealand for mutton and lamb.

Meat Inspection Regulations.

In all the Australian and New Zealand meat works inspection is most rigid, and cleanliness is to be found pre-eminent; in fact, the most critical could find no fault with the work at the meat plants. Only 634 carcasses of mutton and lamb were condemned last year in Great Britain, out of 7,690,737 carcasses imported from Australia and New Zealand.

Conveyance of Stock to Market.

With regard to the conveyance of stock in both countries much can be done to improve matters, particularly in New South Wales. Stock are kept in the train much too long, and are jolted and bruised and depreciated in quality. This will happen so long as they are in the hands of governments, to whom the votes of employees are of the most importance. Australia's livestock is excellent when on its native pasture, but the treatment it receives between that and the killing floor is bad in the extreme.

The time occupied in the passage from New Zealand to San Francisco is 22 days, and the time from the same country to London, where the bulk of the meat goes to at present, is about 40 days, so the United States is well favored in that respect, and meat could be landed well under a month from the time an order is received were freight available. America, when her people want it, can look therefore to these southern lands for meat of a high quality—beef, mutton and lamb—at a moderate cost.

The attached tables (Appendices I and II) are taken from The Pastoral Review, the acknowledged organ of the trade in Australasia.

New Zealand Frozen Meat Exports to the United Kingdom.

Period.	Mutton. Carcasses.	Lamb. Carcasses.	Beef. Quarters.
1903.....	2,005,177	2,040,084	17,946
1904.....	1,906,915	1,885,910	81,513
1905.....	1,564,091	1,887,184	85,927
1906.....	1,739,245	2,288,335	137,616
1907.....	1,887,822	2,748,781	189,510
1908.....	1,731,712	2,623,276	157,050
1909.....	1,831,708	3,165,625	308,984
1910.....	1,908,483	3,342,192	296,807
1911.....	1,702,067	3,326,943	147,154
1912.....	2,360,780	3,191,197	149,397

THE PRESIDENT: Gentlemen, you have heard the report of Mr. Pearce; has any one any remarks to offer? If not, Mr. Switzler has an announcement to make.

MR. SWITZLER: Following our custom, I will now introduce our honorary presidents to the meeting this afternoon. The honorary presidents for this afternoon are Mr. Miles Pasman, of Argentina, and Dr. Kalamán Gally, of Hungary. (Applause.)

THE PRESIDENT: If there is nothing further Mr. David I. Davis, of Chicago, will give us a paper on "Cold Storage Construction,"

with special reference to the refrigeration of meats.

MR. DAVIS: Mr. President and Gentlemen of the Convention:

I might say by way of explanation that this paper was prepared to read to the local meeting of the packers, and was not intended for the general public. Some of the terms that are used in it are local and are thoroughly understood by those we have in our trade, but if any of you gentlemen desire any explanation in regard to any of these terms, I shall be glad to enlighten you in reference to them.

COLD STORAGE CONSTRUCTION

By David I. Davis, Chicago, Ill.

The growing use of cold storage in the meat packing business prompts me to address the convention in a few words regarding the construction there-

the safety of the product becomes a matter of no small thought.

Fireproof Cold Storage Buildings Highly Desirable.

The permanence of a building for this purpose once constructed and the likelihood of changes due to variation in business being small, together with the safety of its contents and a consequent low insurance rate, makes fireproof cold storage buildings highly desirable. In these days of increasing insurance rates, buildings that are rated from 20 to 30 cents—non-sprinklered—appeal to us. These rates are not uncommon. Such can be obtained on properly constructed buildings with adequate exposure protection.

Fireproof cold storage buildings can be of various styles of construction. The two types mostly used are: First, of steel frame with either cast-iron or steel columns, steel girders and beams with tile or concrete in combination for floors; second, reinforced concrete frame, with concrete and tile in combination, or monolithic concrete floors.

Concrete Construction Is Considered the Best.

For moderate heights the walls can be self-sustaining; that is, built up solidly, but beyond a certain height it becomes economical to use curtain walls similar to the well-known skyscraper. In buildings up to eight stories, reinforced concrete frame with monolithic floors proves more economical than steel framing with tile or concrete floors. I am of the belief it is more lasting, since it is impossible to closely fit tile and exclude air, moisture, heat and condensation, which we have in this class of building, and conditions most contributing to rust.

The life of steel framing under these conditions is an untried experiment. On the other hand, in the reinforced concrete building the strength is much derived from the concrete, and when well designed and the work well executed the steel is embedded and thoroughly concealed in the concrete, remote from the conditions above stated and contributing to an indefinitely long life.

Eight-story warehouses, with basement, appear to be ample in height for ordinary conditions. Meeting the insistent demands of building ordinances in cities like Chicago, these can be constructed of reinforced concrete with a maximum column diameter of 28 inches, with all floors designed for 200 lbs. per square foot, and this height building with such loadings approximates the practical limit of sustaining on footings on the usual underlying earth.

Certain Styles of Construction Preferred.

In concrete buildings, just referred to, our preference style of construction is either of the mushroom type—that is, flat ceilings without girders—or with girders extending in one direction only. An inexperienced reinforcing engineer in his efforts to minimize the quantity of steel and concrete requirement will invariably wish to carry girders from column to column with cross beams between girders, making the ceiling look like a checker board, losing perhaps 20 inches or more head room on every story, and making a much more expensive building to construct and to operate.

The same fault is noticeable in steel frame buildings, since nearly always there are cross-beams between girders. This drops the chilling pipes, curtailing head room, and makes an unsatisfactory arrangement. Whereas, with a mushroom or flat ceiling with girders in one direction, the difficulty is overcome.

In an eight-story building the additional height above referred to amounts to from 10 to 15 feet of unnecessary building, and adds greatly to the construction cost—really in direct proportion.

Brick Exterior Surface Is the Best.

As for the exterior surface of the building, this, in our judgment, should be brick, the lighter in color



J. J. FELIN

(J. J. Felin & Co., Inc., Philadelphia)
Chairman Executive Committee.

of. In using the term "cold storage" in this paper we will consider it to embody storage maintained at a temperature of 32 degrees and under.

The growth of your business to include, as it now does in most instances, a produce merchandising business with its seasons of production and storage, together with the necessity of providing low-temperature storage space for storing delicately-cured hams and bacon over seasons, makes it almost a necessity that you provide low-temperature storage. If not, you must seek it away from your premises, with the incidental expense involved in transfer and return, storage charges and the damage resultant from exposure.

A first consideration is the location of the building for operating advantages, which is a local matter, but involves shipping facilities by team and by car, convenience to the source of production and power plant. Naturally the value of the commodity in storage at present prices, makes a large amount, and

the better, because of the less absorption of heat. When building reinforced concrete frame with curtain walls, we think the design should be such that, to prevent air and moisture leakage, the brick work entirely covers the concrete frame, since it is very difficult to obtain tight joints abutting beams and columns when attempting to build panels of brick in concrete framing.

Further, in the selection of brick, sufficient attention is rarely paid to the obtaining of brick burned approximately to vitrification. The presence of salt, as we frequently notice on exterior walls of our packing houses adjacent to floor lines, indicates that brine has been percolating the walls, due to their porosity. In the same measure water will pass through in the opposite direction, and very far disqualify the insulation materials, unless they be non-absorptive, and these are lessened in value owing to the accumulating moisture.

We are opposed to all kinds of tile and plaster or concrete exteriors, since it is impossible to avoid shrinkage cracks which permit percolation of water, eventually shelling off plastered surfaces and deteriorating insulation.

In Northern climates it is desirable to take advantage of the winter air—when it equals or is lower in temperature than the rooms where the product is stored—to air and cleanse an apartment when empty. For convenience in this we advise locating refrigerator windows in opposite walls in the same line, to permit ready flow of air through the room, these being put on hinges similar to a door.

Insulation Problems in Fireproof Construction.

When we begin to construct fireproof buildings we face problems in insulation. The more dense or heavier the material used in building, the more cold radiated from all surfaces, unless effectually cut off. In ordinary types of construction the various floors rest on exterior walls, and in no way is it possible to prevent a very great loss of cold being carried through the floors, thence to the walls and dissipated thereby.

Such matters are not trivial in their importance. I know of a wholesale distributing market where deterioration in insulation during six or seven years has necessitated the doubling of refrigerating machine service, and the volume of business is practically the same.

To obviate this the remedy seems to be to surround the building on all sides, and cover the roof with an encasing of insulation, putting on an exterior covering of brick or impervious material to protect the insulation and prevent moisture coming in contact with the insulation. It is just like dropping a small box within a larger one, the space between the sides being the insulation.

We accomplish this when building self-sustaining

walls by constructing a set of columns adjacent to the walls, with girders from column to column, and supporting floor slabs upon the girders, not permitting either columns, girders or slab to be in contact with the exterior wall. If we design skeleton construction, there are twin columns, girders and beams; the inner set carrying the floor loading and the outer the building walls, the insulation lining being unbroken between them.

To Maintain Different Temperatures in Same Building.

Commercial demands require a variety of temperatures, some at zero, some at 15 degrees and some at 32 or over, in the one building. The maintaining of these varying temperatures in one building requires most careful designing, since the concrete everlastingly conveys cold, and to cut off a floor that above can only be done by comprehensive and extravagant insulating.

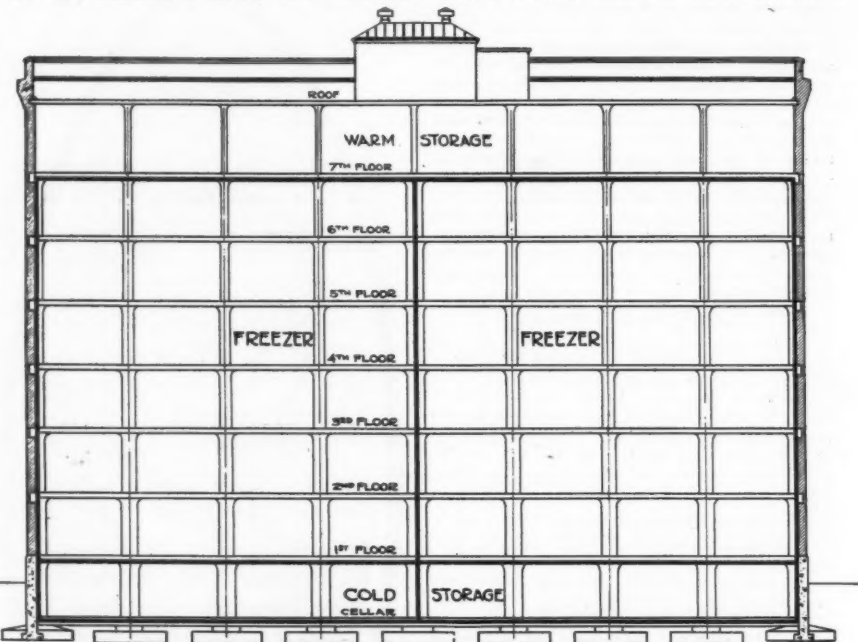
I have been in storage houses where, with a freezer situated over or under an egg room, a stove was being maintained in the egg room to offset the

cold temperature from above or below. This was a dangerous, costly expedient, not to mention the risk from freezing eggs.

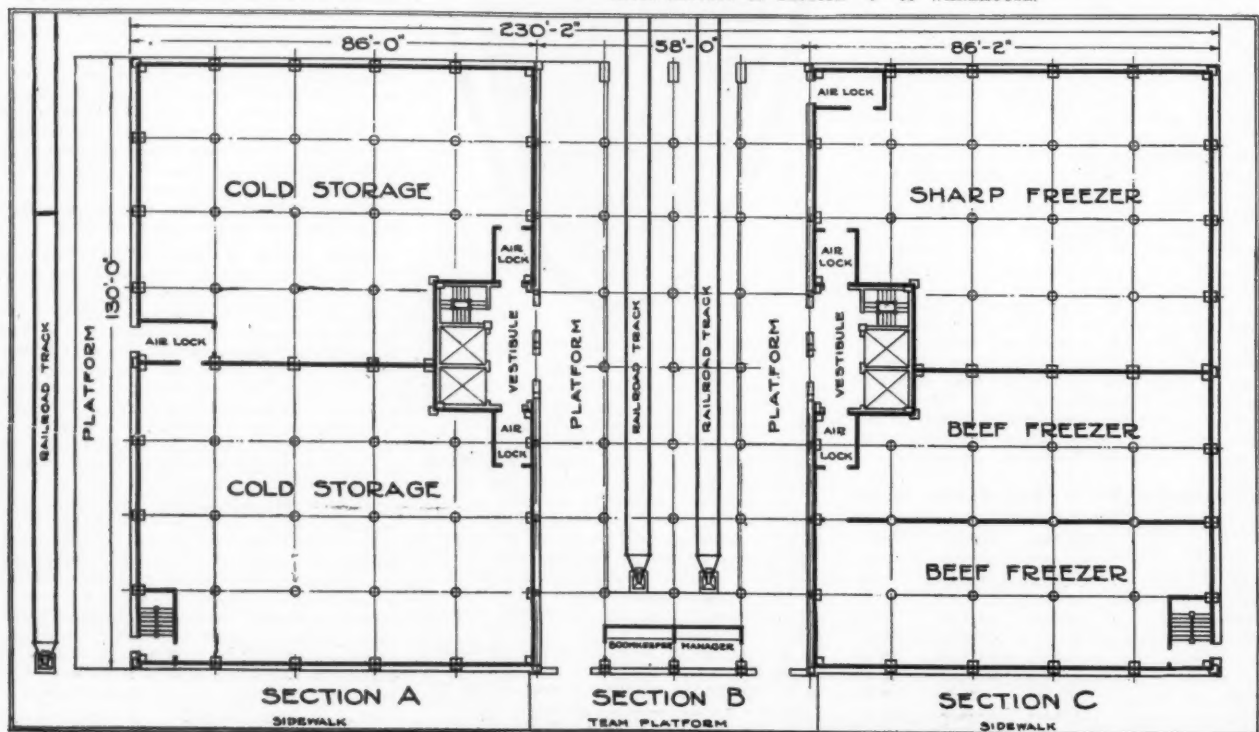
To encase and isolate a room to maintain zero to 15 degrees in it, and say to 32 above, it is necessary to perform the following insulating: Cover the ceiling and beams, cover the floor, cover the columns, so as to really envelop the cold. When you place insulation on the floor, naturally the question of a wearing surface over the insulation is apparent, and to maintain it fireproof this must be cement, or perhaps mastic.

This causes an expenditure for wearing surface over the floor insulation, increased column quantity and strength, increased deadload of floors, insulation of floor and ceiling, and of columns, and this, conservatively speaking, amounts to a total of 85 to 90 cents per square foot of area. This over one foot is but a small amount, but on a building 100 feet square it becomes \$8,500 per story.

To meet the variety of temperatures required, we advocate subdividing the premises into sections, but doing it vertically rather than attempt to divide it



CROSS SECTION OF SECTION "C" OF WAREHOUSE.



GENERAL FLOOR PLAN OF COLD STORAGE WAREHOUSE.

horizontally, with a portion set aside for each division of temperature. If the business is of such volume as to permit this, we make no attempt to insulate one floor from that above, believing there is no practical way to do it, and obviating an investment in insulation from which there is no return.

We believe strongly in a thorough external wall and roof insulation, and consider the cold radiating into a room above that may be only partially filled or empty as no great loss, provided the outer contacts are eliminated or minimized.

Loss of Cold Through the Ground.

In fireproof construction the loss of cold through the ground is an unsolvable problem. To effectually prevent it, it would be required to insulate every floor slab, top and bottom, and all wall beam and column surfaces. From the foregoing deduction the cost would be prohibitive.

It is obvious from this argument that we do not advocate the location of freezers in basements, thinking it far better to situate them on the upper floors of the building, and make the cellar a moderately cold room, permitting such cold as will radiate from the columns to chill it, but supplying such additional piping as may be required to maintain a regular temperature. If we place a freezer on a first floor, it requires insulating the basement ceiling, which can be readily done. The basement columns we do not insulate.

Locating the Piping.

With reference to piping for freezing boxed goods or beef cuts, the shelving system made from coils of pipe upon which to store the product while freezing is preferable. They are equally efficacious whether used in brine circulation or direct expansion of ammonia. The coils in the storage rooms we locate on ceilings, making one layer over ceiling for 15 degree rooms where conditions permit; this is for handiness in removing the frost. If the rooms be carried at 32 degrees or over, we group the coils in alleys to enable easy location of pans for collecting drip, when coils are out of service.

Whether one uses direct refrigerating by expansion of ammonia or brine circulation through pipes hung in rooms, or indirect refrigerating by circulation of chilled air, is a matter of taste and immaterial to us in this paper. Local conditions really govern the requirement.

An Example of Cold Storage Construction.

These principles bring me to a point where I wish to describe to you a recent example of cold storage construction just completed for the Merchants' Cold Storage and Warehouse Company at Forty-first street and Ashland avenue, Chicago, who, I am sure, would take pleasure in showing the building to those interested.

This building has a frontage of 230 feet by 130 feet depth. To avoid an insurance area charge for too large floor areas, and because of a desire to carry several temperatures, the building was subdivided into three sections, A, B and C, by putting in fire walls. It was designed to have Section "C" subdivided in two halves, permitting the maintenance of two classes of low temperatures. Section "B"

was set aside primarily for carrying eggs and apples, and thoroughly isolated. Section "A" was treated in like manner to Section "C," except that provision was made for the division wall, which was not put in at present.

Illustrating the design is a general floor plan of the premises, together with a longitudinal section drawing, and a cross section drawing of Section "C."

Referring to the plan, I draw your attention to the three sections. Ingress and egress has been provided by railroad track at one end of Section "A," and double track with platforms on each side, connected at end. Twin elevators with stair are located within a continuous vestibule, and the center section can be served from either elevator and stair in either vestibule. The corner stairs in Sections "A" and "B" were demanded by the city building department, but are not necessary to the operation of the plant.

Referring to the longitudinal section please observe the twin columns, twin girders on each floor level, the inner carrying the floor construction and the outer the curtain walls. Notice the inlay of insulation. The outer walls, as you see, entirely enclose the concrete skeleton, making the brickwork continuous and slightly.

The transverse drawing of Section "C" shows a dividing partition continuous from basement to ceiling of the sixth floor. This partition is not built from

floor to floor, but continuous through the floors, making either end virtually an isolated building.

It was desirable in this instance to use the upper floors of the building for warm storage, consequently the top encasing insulation is placed on the ceiling of the sixth story, continuing to and meeting the wall insulation, which with the wall insulation encases the cold storage, as spoken of for the ideal.

The floor construction is of flat ceiling type, there being no girders to contend with in piling product or installing piping. The absorption refrigerating plant is to be operated by exhaust steam, available from and by arrangement with the Sulzberger & Sons Company's plant nearby. It is situated on the top floor of Section "A," consisting of triplicate units with full interchange. The building will be chilled by brine circulation, direct radiation. It is insulated throughout with pure corkboard.

Carte blanche was given to produce as near to the ideal as could be, and the entire detail was given particular study to produce a building of high standard, according to the principles set forth in the fore part of this talk.

THE PRESIDENT: Does any one wish to ask Mr. Davis any question? If not, we will proceed to hear a paper by Mr. James E. Poole, of the Chicago Livestock World, entitled "Future Meat Supply of North America."

FUTURE MEAT SUPPLY OF NORTH AMERICA

By James E. Poole, of the "Chicago Live Stock World"

"When will meat be cheap again?" echoes and re-echoes popular clamor. The puzzle is not calculated to tax the ingenuity of a Philadelphia lawyer. Meat never will be cheap again in the sense that it has been inexpensive. Increasing cost of production and annually swelling consumption are factors to be reckoned with.

Theorists have exploited the illusion that somewhere on the distant horizon—South America, Australia, Africa or Siberia—an avalanche of beef and mutton is awaiting the free trade era, ready to slide into and deluge the North American market, but their day of discredit is not far distant.

Gradually the barriers of Europe against foreign meats are being lowered, rendering world-wide equalization of prices inevitable and that the cattle and sheep industry of South America has retrograded, rather than expanded, in recent years, is everybody's secret. Trade authorities of that country are openly lamenting the fact that with the United States market ready to absorb their product they are unable to take advantage of the opportunity. Australia's fickle climate renders production in that quarter uncertain, and neither beef nor mutton have ever been successfully produced in commercial quantities outside the temperate zones, so that extravagant exploiting of Africa, Brazil and Venezuela may be dismissed as a chimera, at least so far as the meat supply of this generation is concerned.

Must Look to Our Home Supply.

Whence then must the future supply of meat come from? The only logical source is domestic production, supplemented by that of Mexico and Canada.

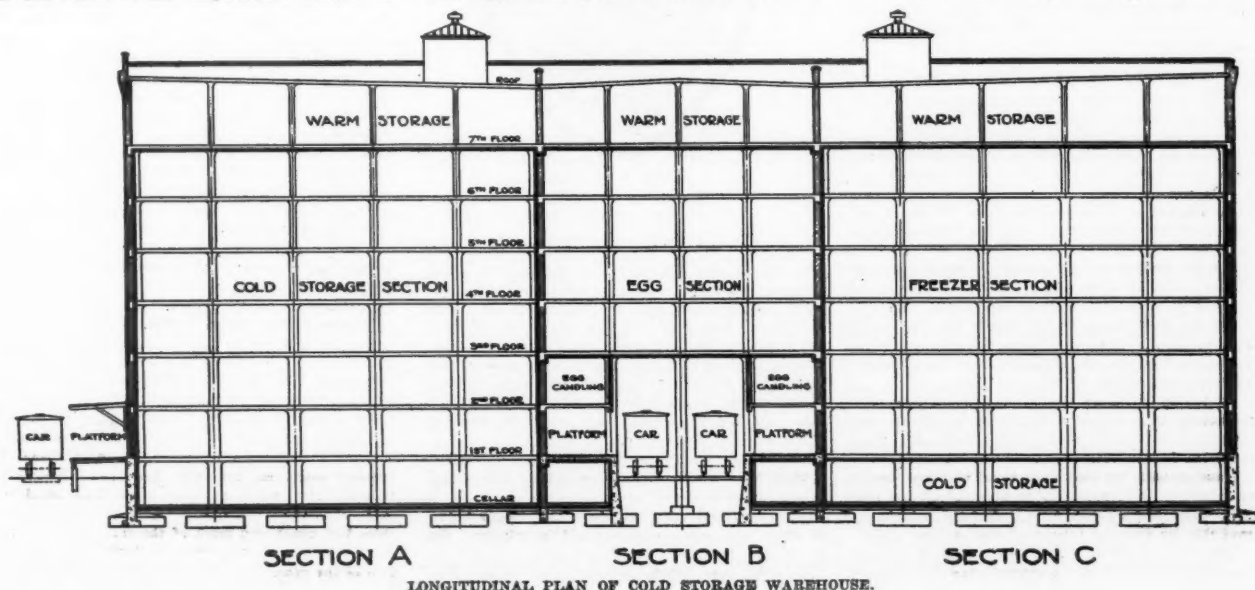
Mexican and Canadian prospects may be briefly stated. Mexico is the best undeveloped cattle breeding ground in the world. Much of its area is naturally pastoral. Its climate is such that calves may come all the year round, and with a stable government the five northern states would soon be producing a calf crop of sufficient proportions to relieve current stock cattle scarcity in the United States. When the late J. D. Wood laid out the Palomas ranch in Chihuahua he planned to brand 100,000 calves annually on 2,500,000 acres, and would have done it if death and the revolution had not upset his calculations.

This will give an idea, however, of the cattle producing capacity of northern Mexico, in a stocker sense, and if the present rumpus south of the Rio Grande could result in the acquisition of Sonora, Chihuahua, Nuevo Leon, Tamaulipas and Coahuila a boon would be conferred on the cattle feeders and meat eaters of the United States.

Canada, like Mexico, presents alluring possibilities for the production of stock cattle and they will be of superior quality to Mexicans. The wheat belt of western Canada is already facing the necessity of getting out of the one crop rut, and that climate produces a hardy steer capable of converting corn into beef more profitably than any other kind of cattle. Ontario has millions of acres of rough land naturally adapted to steer raising, and now that a market is assured that industry will receive impetus. This season Ontario stock cattle are selling at Lancaster, Pa., at \$6.50@7.40 and the bait is alluring.

Why Mexico and Canada Were Undeveloped.

It may be asked why these opportunities have



not been developed. We must remember that until very recently cattle growing was not profitable. This fact alone was responsible for dispersal of domestic breeding herds. Mexico would have been in the cattle business in a big way ere this, but for the revolution down there, as American cattlemen were preparing to exploit that grazing ground when the Madero ruction started. Canada has never had a reliable market either for its fat or stock cattle. For years it clamored for admission to Great Britain, but Irish influence was too strong and Canadians quit the cattle game in disgust. Why calf raising in the United States was largely abandoned is everybody's secret. It simply did not pay.

But conditions have changed. A fat purse is hanging on the wire and that always attracts a line-up of horses, when the starter cracks his whip. Beef-bred calves are no longer being sacrificed and the man who has the task of picking up a load of them at any of the central markets tires of his job. After a lapse of many years we have reached a condition where there is more profit in raising a yearling stocker than fattening him. A decent beef calf is worth \$35 at weaning time, a good one \$40, and they are hard to buy at these prices. Yearling stockers command \$60, even when they have no ancestry to brag about.

Gradually the bad odor that enveloped cattle raising is being dissipated, but it is a slow process. The cow population of the natural breeding ground of the country has been decimated until rehabilitation of the industry looks almost hopeless, but the possibilities are apparent. A condition has been created where it is possible to winter a cow cheaper than summer her and that will expedite the process. We are prone to mourn the decline of the range cattle industry, but it would be as logical to regret the disappearance of the buffalo. Cattle growing on the open range was a reckless system of gambling; new conditions insure stability.

How Long Will It Take?

How soon is the beef industry to be rehabilitated? No definite answer can be given, but at this critical stage federal assistance would be of great benefit.

The Washington government brags about the money it spends on agriculture, but much of it is pure waste; the overloaded pay rolls do not stimulate production. Junkets by sad-eyed scientists to Siberia and other remote regions in search of puckerless persimmons and fruits susceptible of propagation in blizzard-swept regions of the United States might be dispensed with and the food of expensive, but obfuscating statistics eliminated.

Of recent years the operations of the steerman have expanded while the cow herd has been unpopular, the reason being that the short term loan needed by the steerman was popular in banking circles, while the cowman was denied accommodation because the nature of his operations required a long-time loan. The result is that the steerman is faced with the prospect of extinction because he can no longer replenish his pastures.

One does not need to climb a tree to discern a way out. Let the government finance the cowman until the cattle breeding industry is on its feet. This may savor of paternalism, but if Washington can furnish money for crop moving it ought also to be equal to this emergency. It is a business proposition pure and simple.

Plenty of Land to Raise Cattle.

Here in the United States are millions of acres of the best cattle breeding grounds in the world. Our grain-raising acres probably never will be utilized for running cow herds, but even in Illinois, Indiana and Ohio are vast stretches of broken land adapted only to pastoral purposes. South of the Ohio River are other millions of acres and Michigan, Wisconsin and Minnesota are equally well situated. West of the Missouri River are the park regions of the intermountain country and a constantly increasing acreage in hay, a bulky crop which has little value in its original form, but is readily converted into beef, provided the stock owner has the cattle for the conversion purpose. All these natural resources await development, and but one obstacle exists, the necessary financial ammunition for the campaign.

On the Pacific Coast the big packers have already recognized this necessity and have organized loan companies to finance feeding operations, but what is needed at this juncture is money to stimulate breeding and to push the good work along with any degree of celerity a large sum will be needed. At the outset \$50,000,000 should be appropriated and made available for five-year loans on female cattle.

The basis of the live stock business is credit and no better collateral can be desired than cattle paper

where the owner is able to care for the stock, which was not the case under the open range conditions. To distribute this fund local banks could be utilized. The borrower could be charged 6 per cent., one per cent. going to the banker making the loan for supervision. Fraud could easily be prevented by a competent system of inspection. A cow is just as good property as a steer and more remunerative, but to carry out a breeding enterprise requires time, hence the need of time loans.

If the government came to the relief of the industry in this manner within ten years domestic beef supply would be adequate. Thousands of settlers now developing the trans-Missouri region would be able to establish small herds, utilizing hay that now has doubtful value, and under prospective market conditions the \$35 calf of a \$60 cow will pay bigger dividends than any legitimate proposition ever put on paper. If the beef industry is to be rehabilitated the 50-cow herd must be the cornerstone.

Must Establish a System of Control.

Classification of the strictly pastoral lands of the



JAMES E. POOLE
("Chicago Live Stock World")
Speaker at the Convention.

West and establishment of a system of control will also be of great assistance in putting the cattle industry in healthy condition. Sentiment insulates that these lands be held open for settlement, but several varieties of sentiment exist and this is the fool kind. An active prairie dog could not exist on a square mile of much of this land, but if cattle growers were given 5 or 10-year leases, permitting them to make the necessary improvements to carry on their business within a few years there would be large accretions to the beef supply.

Were it not for the western cattle now coming to market from fenced pastures on Indian reservations, of which the Standing Rock and Cheyenne in South Dakota are good examples, even the meager supply of grass beef now available would be missing. One reason for the ruin of the range cattle industry was that grass was public property and human greed

wasted national wealth. Give the cattleman a lease at an equitable rental and he will be able to avoid the evil of overstocking, the government will get a revenue from lands now unremunerative and supply will be materially increased.

With its wealth of forage, long pasture season and superb climate the South offers excellent opportunity for beef raising. What has been accomplished in Virginia, Kentucky and Tennessee in raising lambs every killer knows, and beef production would have shown similar gain but for the tick. This pest is responsible for the fact that outside the State of Texas there exists no cattle industry of commercial importance in the South, but the dipping vat will change this.

Outside of trade circles little is known of what is being accomplished in the way of tick repression by the use of the dipping vat. In Texas the scourge is being effectively combatted by a chain of vats, approximately 400 in number, the use of which is revolutionizing the cattle industry. The vat has arrested declination of the breeding herds of south Texas by providing an annual outlet for the increase.

Three years ago the cow industry of that region was threatened with extinction by the closing of Oklahoma pastures to ticky cattle, depriving Texas of its only maturing ground for ticky cattle, but the dip saved the day. It is now as easy to clean a ticky steer as to fumigate a tramp. This season and last D. B. Zimmerman, a pioneer in this sphere of enterprise, has moved 70,000 ticky Mexican and Texas cattle to Montana, Wyoming and South Dakota, and this year some 300,000 of these cattle will cross the quarantine line from tick to non-ticky grass in Texas, ready to replenish Kansas and other northern pastures in 1914 and succeeding years. This vat not only makes possible the utilization of the south Texas breeding ground to its full capacity, but creates an opportunity for other southern states to raise commercial cattle profitably.

There is no better calf nursery in the world than the cotton states and no section of the country is more in need of the fertilizing influence of the bovine species.

Must Curtail Expense.

The beef supply of the future will be grown with less expense. Hauling cattle around the country costs a lot of money annually that might be saved and values that shrink and disappear through the slats of the cars are enormous. This development, which means maturing near the source of origin, is already in evidence.

Texas is marketing fat yearlings instead of sending calves to the cornbelt and two-year-olds to the Northwest and Montana, the Dakotas and Colorado are retaining their young cattle for winter finishing purposes instead of dipping them to Missouri River markets. This is coincident with grain and hay production, putting these bulky commodities on the rails, dissipating the growers' profits. In Montana, for instance, much of the wheat grown is too far away from shipping points to be hauled and a haystack distant ten miles from a railroad is worthless for commercial purposes, but converted into beef and mutton it will walk to the loading point.

These vast regions will get back into live stock from sheer necessity. The getting back process has already become perceptible. As the West will hold its cattle for finishing purposes, other sections will be compelled to produce young stuff and this will necessitate breeding in every part of the country. It means that the South will have a market for stock cattle in the nearby cornbelt and in the East, for experience has taught the tobacco growers of Pennsylvania that the value of their special crop can be maintained only by liberal applications of animal manure. Under present conditions they are paying a heavy toll to the railroads for hauling western stocks, not only in freight but in shrinkage. A Pennsylvania stocker dealer stated recently that the reason he was securing his supply in nearby Ontario and paying 27½ per cent. duty was that he could not stand the shrink on shipments from Missouri River markets.

How much money is wasted in this manner annually is indicated by the career of a bunch of stockers that left Omaha last fall. They originated in Texas, were single wintered in South Dakota, went from Omaha to Wisconsin in November, were shipped to Chicago in January, went thence to Sioux City, were held 90 days on a southern Minnesota farm, went thence to Chicago where an Ohio man got them for summer grazing. Any profit accruing from that bunch of cattle went to the carriers. Nearly everyone handling them lost money and much of the cattle trade of the country is done on the same loose basis. The fascination of the game is on the uncertainty of the draw.

Profit in Home Grown Cattle.

Contrast this method with the case of a Wisconsin man who recently sold a load of \$9 yearlings at Chicago. He bred and fed them himself. They never left one farm; never knew when they were weaned and made money for their grower from the day they were born. The owner was asked what proportion of gross returns was profit and replied: "Every cent is profit. Never had any of that money before, did I? and I never paid a dollar for stockers." This may not be logic, but it shows how satisfactory that kind of beef making is and now that an unlimited supply of cheap western stock cattle is no longer available, this system will be more generally adopted. The cattle business has been a big gamble, it is now getting on a stable basis.

The beef supply of the future will be largely on the yearling order. Demand now centers on 800 to 1,200-lb. cattle and the big steer is out of date. Trade demand is for a light fat carcass requiring between one and two years to make. This system will permit carrying a larger number of cows as grass and feed will not be needed for maturing steers. The most economical steer ever sent to market is the thousand-pound yearling. Even the Trans-Missouri-region, where four and five-year-old steers have been the rule, is adopting the early maturity idea. Texas stock cattle are being taken north as yearlings instead of two-year-olds and now that western cattle are winter fed, one to two years will be pruned from the growing period. This will produce, in the aggregate, more beef than in the halcyon days of the range cattle industry.

Calf Slaughter Chimera.

Prohibition or restriction of calf slaughter has been urged by well-intentioned theorists as a means of restoring beef production, but the idea is both chimerical and impracticable. Congress might prohibit interstate traffic in veal, but the only result would be to promptly eliminate from the available supply a vast quantity of excellent meat. No representative of an agrarian constituency in any state legislature would dare vote for such a measure unless he courted political extinction.

And if, for the sake of argument, a state like Wisconsin, one of the principal contributors to the veal supply, enacted such legislation, what would result? Calves by the thousand would be killed on the farms where they were born and the carcasses fed to hogs. There would be a lot of calfskins on the market with no corresponding quota of veal. You may prevent a man from killing calves, but no state government existing would prevent them from dying from natural causes.

Not one dairyman in twenty is so fixed as to be able to raise his calves, and if the state undertakes to tell him he must do so it must also be prepared to aid him in the task. Ninety per cent. of the calves marketed at Chicago are not fit for beef-making purposes and no intelligent cattle feeder would handle them if grown. There was a time when beef-bred calves were vealed in large numbers, but that day has passed and the West is carefully conserving bovine youngsters of that character. Exploiters of the calf conservation idea fall into the error that all calves are fit for beef maturing purposes. They are ignorant of the fact that this is an era of specialization and that the dairy herds of the United States are bred along milk production lines. The only effective method of insuring the raising of beef calves is to make them too valuable for vealing purposes.

A Chicago congressman who made a speech at Washington the other day in advocacy of a bill to prohibit calf slaughter, in which he stated that every calf killed would, raised to the age of two years, make 1,400 pounds of beef, illustrated current ignorance on this subject. Good Hereford and shorthorn steers, four years of age, now coming from Montana and Dakota pastures, do not weigh 1,400 pounds alive, and any killer will tell you how many of them dress 60 per cent.

Future Hog Supply.

A hog has been properly described as an animated risk. Nature seems to have placed a limit on the production of pork in the cornbelt, the habitat of the commercial hog at present, but it is safe to predict, within the next half decade a revolution in hog breeding. We are on the threshold of an era of stock hog trade. Already the inception of that industry is to be detected at St. Louis and Kansas City, where thousands of southern hogs are being immunized against cholera for a short feed in the cornbelt. Utah, Idaho, Montana and other sections of the West possess hog breeding capacity not yet estimated and in the evolution of the trade young hogs will be taken from that breeding ground, after being immunized to

be fattened in the corn states. Until breeding and sanitary methods are changed, it is probable that hog breeding east of the Missouri river has reached its limit.

The Mutton Industry.

Mutton, or, to be correct, lamb, has become an important factor in our meat supply. An animal that produces two crops annually ought to be more popular with the average farmer, but after years of remunerative prices we find the 1913 crop of native lambs the smallest that ever reached market. Theorists have figured that if every farm maintained a small band of ewes the annual increase would insure an abundant supply of mutton, but in practice the small flock is a failure.

The so-called native sheep industry is all but extinct and lamb raising has become a localized specialty. An illustration of this is the large and profitable lamb crops of Tennessee, Kentucky and Virginia, a comparatively new industry. There are large areas

wrestling with rapidly increasing consumption, but that factor is permanent assurance that the grower will be rewarded. Incidentally Mr. Hodgkinson said: "This North American continent is the greatest natural beef and mutton raising ground on this mundane sphere, and it seems preposterous that the United States should be even considering the necessity of importing meats."

THE CHAIRMAN: Is there anyone here that wishes to ask Mr. Poole any questions upon what he has said? Very well, there are none.

Gentlemen, the Secretary of the Third International Congress of Refrigeration will make an announcement as to tomorrow's meeting.

THE SECRETARY: I wish to announce that there will be a special meeting of the Third Section tomorrow morning at 9:30 o'clock in conjunction with the National Poultry, Butter and Egg Association and the Railway Perishable Freight Association. I know that it is almost an inconceivable thing for a packer, a meat packer, to bother with so small an object as poultry and eggs, but if any of the members of the Meat Packers' Association are interested in this minute object that only amounts to \$750,000,000 a year, we would be delighted to see you in this room tomorrow morning.

In the absence of the chairman of Section Three of the Congress, I wish to say that it has been a pleasure and a privilege of meeting with the American Meat Packers' Association this afternoon.

THE CHAIRMAN: The meeting will stand adjourned unless some one wishes to ask some questions or has anything to offer, until tomorrow morning. Thank you, gentlemen.

Whereupon the meeting adjourned.

FOURTH SESSION

Wednesday, September 24, 1913, 2 p. m.

THE PRESIDENT: The meeting will come to order. The report of the Auditing Committee will be read by the Secretary.

Report of the Auditing Committee

Your Auditing Committee has carefully examined all books, vouchers and records of the association and find them exceptionally well kept and very accurate. We desire to compliment Mr. Roth upon the able management of his office.

Respectfully submitted,
THE AUDITING COMMITTEE,
Fred. Krey,
J. Fred Shafer,
D. V. Colbert.

THE PRESIDENT: What do you wish to do with this report, gentlemen?

A MEMBER: I move that it be accepted. Motion seconded.

THE PRESIDENT: The report will take its usual course unless objection thereto is raised. It is so ordered.

The next will be the report of the Obituary Committee.

Report of the Obituary Committee

There is one sad duty which we have to perform each year and that is to record the names of our members who have departed this life and gone to the great unknown; therefore

Be It Resolved, That, whereas an All-Wise and an All-Just Providence has in His wisdom and justice seen fit to take from our ranks, and to deprive us of their association, several of our most respected and useful members, we give expression of our regret and affection for the following deceased members:



CONRAD YEAGER

(Pittsburgh B. & P. Supply Co., Pittsburgh, Pa.)
Chairman Obituary Committee.

to which lamb raising is adopted by nature and the resources of these sections are being slowly developed. Idaho is an example of what can be done in mutton production and that industry south of the Ohio river is merely in the inception stage.

In speculating on prospective meat production we must not overlook the fact that for many years conditions have been repressive of increased output. The grower had no incentive for enterprise or energy. Having liquidated to the famine point he has now ample encouragement to change his policy. The most effective means of bonusing the live stock industry is by maintaining a remunerative and stable market.

Isaac M. Hodgkinson, head of the Armour concern in London and a noted English cattle feeder, after a trip through Canada and the United States a few weeks ago, predicted that the live stock industry would come back and his prophetic vision was good. The coming back-process is already well under way, and it would be more noticeable if it were not

W. H. Field, of the American Cotton Oil Company, New York.
Geo. Rupp, of Hamilton, Ohio.
Geo. Strause, of the United Dressed Beef Company, New York.

John G. Cassidy, of Henneberry & Co., Arkansas City, Kan.

R. T. C. Lunham, of Boyd, Lunham & Co., Chicago.
Chas. Roesch, of Roesch & Sons, Philadelphia, Pa.
D. G. Sinclair, of T. M. Sinclair & Co., Cedar Rapids, Ia.

M. J. Nuckolls, of Nuckolls Packing Company, Pueblo, Colo.

Solomon Ettlinger, of Koch Butchers' Supply Company, Kansas City, Mo.

C. Hohman, of Baltimore, Md.

Christian Kalbitzer, of C. Kalbitzer Packing Company, Wheeling, W. Va.

Adolph Sander, A. Sander Packing Co., Cincinnati, O.
Frank J. Roth, J. C. Roth Packing Co., Cincinnati, O.

Frank R. Bagley, W. A. Hazard & Co., Chicago, Ill.

N. Frank, Milwaukee, Wis.
W. D. Grant, St. Louis, Mo.

Be It Further Resolved, That the secretary of the association be instructed to spread these resolutions upon the minutes of the association, and to notify the families of the deceased.

Respectfully submitted,
THE OBITUARY COMMITTEE,
Conrad Yeager,
S. E. McPartlin,
F. G. Betz.

THE PRESIDENT: What is your pleasure with this report, gentlemen?

A MEMBER: I move it be adopted. Motion seconded.

THE PRESIDENT: It will take its usual course unless otherwise objected to. It is so ordered, Mr. Secretary.

The next will be the report of the Nominating Committee.

Report of the Nominating Committee

Your Nominating Committee begs leave to report the following nominations for officers and Executive Committee during the ensuing year:

President, James Craig, Jr. (Parker, Webb & Co.), Detroit, Mich.

Vice-president, Fred. Krey (Krey Packing Company), St. Louis, Mo.

Secretary, Geo. L. McCarthy (The National Provisioner), New York.

Treasurer, George Zehler (Zehler Provision Co.), Cincinnati, Ohio.

Executive Committee:
John J. Felin (John J. Felin & Co., Inc.), Philadelphia, Pa.

Ralph W. E. Decker (Jacob E. Decker & Sons), Mason City, Iowa.

Howard R. Smith (Jones & Lamb Co.), Baltimore, Md.

W. H. Miller (Miller & Hart, Inc.), Chicago, Ill.

John Theurer (Theurer-Norton Provision Company), Cleveland, Ohio.

Myron McMillan (J. T. McMillan Co.), South St. Paul, Minn.

R. Mannheimer (Evansville Packing Company), Evansville, Ind.

Charles J. Walsh (Dunlevy & Bro. Co.), Pittsburgh, Pa.

Fred R. Burrows (G. H. Hammond Co.), Chicago, Ill.

Respectfully submitted,
THE NOMINATING COMMITTEE,
Charles Rohe,
B. W. Corkran, Jr.,
Chas. E. Roth,
Geo. A. Hormel.

THE SECRETARY: I would suggest, gentlemen, that a motion would be in order, if there is no objection, that the Secretary be instructed to cast one ballot. Motion seconded.

THE PRESIDENT: All those in favor of this motion please signify it by saying aye; contrary, no. It is so ordered, and the gentlemen whose names have been reported by the Nominating Committee are declared to be duly elected to their respective offices. (Applause.)

THE PRESIDENT: The next will be a paper entitled "The Manufacture of Oleomargarine," by John J. Carey, of the Carey-Vail Butterine Company, Chicago.

THE MANUFACTURE OF OLEOMARGARINE

By J. J. Carey, Vice-President, Carey-Vail Butterine Company

(Copyrighted, 1913, by J. J. Carey. Publishers and others please take notice.)

The manufacture of oleomargarine is today one of the highly important branches of the meat packing trades, although but forty years ago it was an imperfect infant industry under the protection or patronage of the French government.

In 1870, under instructions from Napoleon the Third, Mege Mouriés, a Frenchman, succeeded in producing from foreign fats taken from beef a substitute for butter, similar but less expensive. He named his product oleomargarine, not, as is sometimes stated, because of its resemblance to pearl, the Latin name for which is "margarita," but because it contained, as he believed, the glycerides of oleic and margaric acids. The name margaric acid, on the other hand, was derived originally from the Latin, though probably before Mege used it.

His process was essentially as follows: He heated finely-chopped beef suet with water, carbonate of

1873, and began making improvements on it. Subsequently upward of 50 patents were taken out by inventors, protecting various stages of the manufacture. Some of these covered curious processes and materials, such as saltpeter, boric acid, benzoic acid, slippery elm bark, glycerine, etc., to be sold under such names as butteroid, oleoid, creamline or oxyline.

Mege in 1873 was not, however, as is sometimes believed, the first oleomargarine patentee in the United States, for earlier in the same year another chemist, Paraf by name, patented the process and organized a large company in New York City known as the Oleomargarine Manufacturing Company. Between 1874 and 1878 the manufacture of oleomargarine made little headway, but during the next three years it advanced with great rapidity.

Under the Mege patent alone 15 large factories were established prior to the spring of 1881 in the cities of New York, Boston, Philadelphia, Baltimore, Pittsburgh, Cincinnati, St. Louis, Chicago, Buffalo, Cleveland, Albany, Louisville, Detroit, Omaha and San Francisco. In 1895 there were five factories in Illinois, two in Indiana, three in Kansas City, one in Nebraska, one in Ohio, one in Pennsylvania and four in Rhode Island. In 1883 forty-five million pounds of oleomargarine were sold in the United States, in 1893 over sixty-seven million pounds, and in 1894 nearly seventy million pounds.

In 1888 the actual production in the United States alone reached thirty-four million three hundred and twenty-five thousand pounds, and in 1902 it was nearly four times as large as this, or over one hundred and twenty-six million pounds.

But this enormous growth in the United States does not compare with the growth in Europe. There the congestion of population and the poverty of the laboring classes have made the growth much more rapid, and in 1912 a single factory in Rotterdam produced as much oleomargarine as the entire United States, according to an investigator for the Scientific American magazine. But though the United States does not rank high in the oleomargarine trade of the world, it may claim some prominence as a manufacturer of the animal oils that go into the product, for large quantities of these oils are shipped abroad yearly by the great American packing-houses going largely to Holland.

One of the early manufacturers of oleomargarine in the United States was Mr. Patrick Carey, who, with Mr. J. J. Murray, started to make oleomargarine 34 years ago. Their apparatus was necessarily crude and the process tedious. Their vat consisted of a small tub surrounded by warm water in a larger tub, while the product was mixed by hand with a large wooden paddle. The process took five hours, and to make a salable or edible product they used a mixture containing 40 per cent. of pure creamery butter.

From such a primitive beginning the manufacture has grown very rapidly, with improved machinery and more refined stock and materials. The process as used today has been put on a strictly scientific basis, and the progressive manufacturer makes a study of the production and quality of all his ingredients.

Process of Preparing the Oleo Oil.

The most important ingredient of oleomargarine is the oleo oil, which is prepared somewhat as follows: The fresh intestinal and caul fats, including the omentum and sometimes the suet, are taken under government supervision from freshly-killed beef and are thoroughly washed in water at a temperature of 80 degrees Fahr. They are then rapidly chilled in ice water and allowed to cool in the chill room until all animal heat is removed. The fat is then cut into small pieces and rendered at a temperature of about 150 degrees Fahr. in steam-jacketed kettles, until the clear oil is separated from the animal tissues.

The oil is then drawn off into seeding or graining vats, so called on account of the appearance of the oil when cold. It is here allowed to stand 24 hours or more at about 85 degrees Fahr., or ordinary room temperature, when a large portion of the stearin and palmitin will crystallize out.

The resulting pasty mass, or semi-solid emulsion of oil and stearin, is then transferred to cloths, which are folded and subjected to powerful hydraulic pressure between metal plates. Thus the oil or still fluid is pressed out and is run directly into tierces, where it solidifies to a light yellow mass for shipment as oleo oil.



CHARLES ROHE
(Rohe & Bro., New York)
Chairman Nominating Committee.

potash and fresh minced sheep's stomach to about 115 degrees Fahr. At this temperature the pepsin from the sheep's stomach dissolved and separated the animal tissue from the oil, which he then removed and cooled slowly, thus causing a portion of the stearin to crystallize. He then separated the crystallized stearin from the oleo oil by pressure, and this oil alone he used for butter making.

He churned about ten pounds of this fat with four pounds of milk and three pounds of water and a trace of annatto for color. The compound thus obtained when well washed was in general appearance, taste and consistency like butter, and when worked free of excess moisture was found to keep much longer.

Early History of Oleomargarine.

He patented his process in the United States in

By varying the pressure employed the melting point of the oleo oil may be controlled, because more of the palmitin which raises the melting point is expressed under heavier weight, thus producing an oil which is clear, smooth and free from animal tissue and which melts readily in the mouth.

Next in importance to the oleo oil is the "neutral," prepared in much the same manner as the oleo, from the fat of freshly-killed pork taken under government supervision. That portion of the fat which surrounds the kidneys is considered the choicest, but it is usually mixed with the fat from the back. In making the ordinary grades of "neutral" the fats are rendered in closed steam-jacketed kettles at a temperature of about 125 degrees Fahr., and the clear oil, which at this temperature is only a portion of the entire lard, is washed while still melted with warm water containing a small quantity of salt, thus giving a product which at ordinary temperature is a smooth solid almost entirely free from odor.

Vegetable Oils in Oleomargarine.

The vegetable oils form an important addition to

moistened pomace yields an oil yellowish in color and known as butterine oil. This, however, is a misnomer, as the cold-drawn oil is much preferred by the oleomargarine manufacturer.

Sesame oil is similarly prepared from sesame seeds by pressure. Three grades are usually produced by pressing first cold, then warm and then hot. The oil is golden yellow in color, with bland, pleasant taste, but its cost is usually prohibitive for ordinary oleo manufacture.

Milk also is an important ingredient of oleomargarine, but its production requires no discussion here. The fact should be mentioned, however, that it must always be secured fresh, because milk with over two-tenths per cent. acidity cannot be pasteurized.

How the Oleomargarine Is Made.

When the various ingredients have been secured they are assembled by the butterine manufacturer into oleomargarine. Since the good flavor of the product is due largely to the quality of the buttermilk employed, it is essential that careful attention be given to securing the best. The term buttermilk, however, is misleading, since the material is only pure milk soured under favorable conditions. Skim milk is used by some manufacturers, although whole milk makes a richer product.

It is pasteurized at about 175 degrees Fahr. for 30 minutes to kill bacteria. It is then rapidly cooled, when it may be kept in a chill room for a day or two, if necessary, until used.

A portion of the pasteurized milk is used to make starter, or ripener. About 50 gallons are placed in a round-jacketed, tin-lined vat of 100 gallons capacity, and heated by means of hot water in the jacket to 90 degrees Fahr. A culture is then added, and a constant temperature is maintained until the acidity of the starter reaches seven-tenths per cent., when it is ready for immediate use, and will be found to contain only such bacteria as will impart the best flavor to the product.

A portion of this starter is mixed with about ten times its weight of pasteurized milk in a tin-lined vat of about 300 gallons capacity, and is thoroughly mixed by means of a revolving spiral coil of pipe, through which, to control the temperature, hot water or brine may be passed as desired. A temperature of 90 degrees Fahr. is then maintained for about six hours, or until the acidity is seven-tenths per cent., when it is ready for use. If not used at once it must be rapidly cooled, by running brine through the mixing coil until the temperature is low enough to prevent further development of bacteria.

When the buttermilk is nearly ready the oils and fats are weighed out in correct amounts for the desired grade of oleomargarine. These are melted together in large jacketed kettles of about 3,000 pounds capacity, at a temperature of 100 degrees Fahr. or higher, and are mixed by slowly revolving paddles for about 30 minutes, until the mass is thoroughly uniform. From these tanks the mixed oil is conducted through a fine wire screen filter to the churn.

Churning and Working the Product.

The churn consists of a large jacketed vat with upright revolving paddles, which are driven at a high enough speed to agitate the contents violently. Into this the melted oils and buttermilk are conducted through pipes, and are churned at a temperature of 100 degrees Fahr. for 20 minutes. This agitation serves to make a product uniform and of smooth creamy consistency.

From the churn the mixture runs out through a flattened nozzle-like spout into a tank of ice water. At the spout it is met and pulverized by a powerful jet of ice-cold water delivered under high pressure and serving to chill the mixture instantly and pulverize or break it into small granules. This granulating process is assisted by a paddle, which revolves in the path of the falling oil, and serves not only to break up the mass, but also to start a circulation of the floating granules in the tank. When the granulated mass has passed over the length of the tank, a distance of about 20 feet, it has become thoroughly chilled and may be dipped out with cheese-cloth scoops into the tempering trucks.

The mass is allowed to stand several hours in the tempering trucks until it is soft enough for the worker. This is a large drum revolving in a vertical plane and containing within it two smaller revolving fluted cylinders, which quickly work out all the excess of water and render the product smooth and of proper consistency.

From the worker it is transferred usually through chutes to the packing table. Here it is packed into tubs and barrels for shipment, or is worked up into rolls, prints, bricks, etc. These are placed in the

chill room to harden, and are then wrapped in parchment and packed in attractive cartons and boxes to suit the fancy of the retailer and consumer.

Suggestions from a Veteran Manufacturer.

A few personal observations on the process by a practical manufacturer of 31 years' experience may be permissible. They have all been tested in actual practice, and doubtless will be recognized as of value in improving the quality of oleomargarine.

Details of sanitation which will render easier and quicker the cleaning, and keeping clean, of all parts of the factory are highly desirable. The plant should be in a location with plenty of light and fresh, uncontaminated air. All employees and attendants should be required to have clean, white uniforms daily. The floors throughout should be correctly pitched to open trough-like drains, so that they may frequently be flushed with running streams of fresh water. All piping used to convey the oils or milk should be what is known as sanitary piping, made of copper, tin-lined and so constructed in



FRED R. BURROWS
(G. H. Hammond Co., Chicago)
Member Executive Committee.

some grades of oleomargarine. Several oils are used, the most important of these being cottonseed oil. Others are peanut oil and sesame oil. The cottonseed oil is prepared from seeds of the cotton plant, which are first cleaned and separated from dirt by sifting machines and from fiber by specially constructed gins. They are then cut into small pieces, freed from the hulls and crushed between rollers, after which they are transferred to cloth bags and subjected to hydraulic pressure to remove the oil, which is then clarified by filtration. The oil may be further refined by washing with sodium hydroxide solution or lye water, which dissolves and removes impurities and produces what is known as white cottonseed oil.

Peanut oil is similarly prepared by pressure from peanuts. The first cold-drawn oil is practically colorless and of pleasant taste. A second pressure of the



CHARLES J. WALSH
(Dunlevy & Bro. Co., Pittsburgh, Pa.)
Member Executive Committee.

straight sections as to be readily accessible for cleansing with brushes.

The expense of factory operations may be minimized by several details of construction. An absolute gravity system of handling all materials will be found valuable, and where this is impracticable the location of succeeding operations should be so arranged that full trucks need never pass in opposite directions. And chutes should be provided wherever practicable, to relieve the demand on elevators.

An appreciable saving in refrigeration will be realized if cold storage and chill rooms are so arranged as to present a minimum of exterior surface. For example, if such rooms are to be constructed on two adjoining floors, let one be directly over the other, to eliminate warm ceilings and floors. A saving in waste of supplies, such as boxes, cartons, wrappers, liners, stationery, etc., will be effected if these are

kept in an isolated storage, if possible in an entirely separate building, away from the inevitable oil, grease and occasional steam of the plant.

Thorough Sanitary and Chemical Control Is Needed.

In securing the highest-grade product it will be found an economy in the long run to use only the best ingredients. This statement would apply not only to the oleo oil and neutral, but to cottonseed and peanut oils, and to salt and milk and culture, and in fact everything used in the various processes.

Plenty of refrigeration facilities in all rooms will aid materially in producing a high-quality product, and should be provided even at increased initial expense and cost of maintenance. Hot water should be supplied freely everywhere, as its cost is only slight after pipes are once installed, and it is indispensable in keeping clean all apparatus, especially woodenware.

The advisability of chemical control throughout the plant cannot be too strongly emphasized, for such control serves not only to improve the quality of the product, but to insure the uniformity of the quality under all conditions. It eliminates the use, even accidentally, of poor ingredients, for by a careful examination of all raw materials the purchase of second-rate goods is prevented. It increases the probability of meeting all government requirements, for any goods at any stage of manufacture may be subjected to the official government tests, and doubtful or suspicious material may be at once detected.

In these ways chemical control serves to guard the quality of the product through routine analysis, but even more important is the research work which may be conducted in connection with the routine work in the same laboratory. Under this branch comes such work as determining the best degree of acidity in the milk for various brands, or of the most advantageous order in which to add various ingredients to the churn. It includes also such study as the consideration of new or untried oils or other materials, and the disposition of waste products, such as curd, brine, etc., to the best advantage.

Indeed, the factory which today does not enjoy chemical control, at least to some extent, is at the outset seriously handicapped in its competition with the more fortunate manufacturers.

Oleomargarine as a Food Product.

Since oleomargarine has been so often unjustly criticised as a food product, the subject may be briefly considered from an economic standpoint.

Opponents of the industry have claimed that oleomargarine was made from unclean materials. This objection has, however, been overcome in recent years, as people are coming to realize that the greatest care is employed to use only scrupulously clean materials, which are produced on an enormous scale by the great meat-packing establishments, under uniform conditions and with constant government supervision. This care is impossible in creamery butter manufacturing, where the material of necessity comes from hundreds of different small producers under all conditions of sanitation.

It must nevertheless be admitted, however deplorable the fact, that there are still a few misguided oleomargarine makers who are trying to produce a cheap grade of goods at the expense of quality. These manufacturers are in a large part responsible for the objections which have so often been raised against oleomargarine.

As a distinct food product, not as an imitation of butter, oleomargarine is in the first rank. It is claimed for it, and this claim is recognized even by its enemies, that many thousands of peasant children in Europe, who were suffering from rickets because of a lack of animal matter in their food, soon found their physical condition greatly improved when oleomargarine became available.

It keeps well—"holds up" as the dealer says—much longer than the finest butter. This is because it is free from those nitrogenous bodies which in butter very soon putrify and cause it to become rancid. It has an agreeable taste, preferred by many experts to butter, though indistinguishable from butter by the average consumer. Its melting point is always under the control of the maker, so that it need never be too soft for a warm or too hard for a cold climate.

And yet with all these advantages, the very finest grade of oleomargarine may be procured by the consumer for a price as low as the inferior grades of doubtful butter.

When we consider the youth of the oleomargarine industry, how it was invented scarcely forty years

ago, and has advanced with such rapid strides; how the primitive tub has given place to the steam kettle and enormous churn; when we remember the strict sanitary conditions, the government supervision and the chemical control; and when we realize the advantages that oleomargarine enjoys over other similar products we cannot wonder that the industry is outgrowing all the prejudices that were at one time held against it, and that oleomargarine is today recognized as a clean, wholesome food product, delicate in flavor and excellent in keeping quality, with the additional advantage of a low price, which brings it within the reach of all.

HYDROGENATED OR HARDENED FATS

By John W. Hall, Sterne & Son Co., Chicago, Ill.

The average packinghouse man is too eternally busy to be up to the last minute on new discoveries in chemistry. The purpose of this talk is to explain briefly and simply the process of hydrogenation, or hardening of oils, which has just come into vogue in

THE SECRETARY: The next paper, gentlemen, will be "The Hydrogenation of Fats and Oils," by Mr. John W. Hall, of Sterne & Son Co., of Chicago. This is on a subject which is very new, and I think will be very interesting to you. Gentlemen, Mr. Hall. (Applause.)

MR. HALL: I would like to say a word or two in the first place, and that is that when I agreed to write this paper Mr. Charles Sterne agreed to deliver it, but he got "cold feet," and George L. McCarthy has dragged me up here. (Applause.)

Those who deal in fats and greases commercially realize very fully the difference between a hard and soft fat, and in many cases the titer of a product determines its market value.

The old way of producing hard fat from the hog was to press lard, resulting in lard oil and lard stearine. From cattle we obtain oleo oil and oleo stearine, and so on down the line.

The reason for these properties of fats lies in their chemical composition—the more stearic acid a fat contains the harder it is, and the more oleic acid it holds the more fluid it is. A careful consideration of the chemistry of fats has therefore led to one of the greatest advances ever made in the fat and oil business, resulting in the conversion of oleic acid or olein into stearic acid or the corresponding glycerides.

Converting Soft Fats Into Hard Fats.

It has long been the dream of those engaged in this business to convert soft fats and oils into hard ones, and many processes have been tried, but none of them of any commercial importance had been developed up to comparatively late years. As recently as 1904 Lewkowitch says, "Oleic acid does not take up hydrogen, and cannot be converted into stearic acid by this reaction."

The problem involved can be readily understood by a short statement as to the nature of fats and oils.

They are compounds of fatty acids with glycerine. These fatty acids are liquid in nature, the softer acid known as oleic, the harder acid as stearic and palmitic. Oleic acid contains 34 atoms of hydrogen, 18 of carbon and 2 of oxygen. Stearic acid contains 36 atoms of hydrogen, 18 of carbon and 2 of oxygen. Therefore if two atoms of hydrogen can be added to the 34 already contained in oleic acid, stearic acid would be formed and soft fats hardened in this manner.

This statement is not impressive without a few words of explanation. Hydrogen is the lightest of all gases. A common natural occurrence of hydrogen in a mixture of other gases is the deadly fire damp and marsh gas. It seems incredible that the addition of such a trifling proportion of this light, almost unappreciable vapor could effect such a wonderful change in product.

Revolutionizing the Oil Business.

It revolutionizes the oil business when a thin liquid material of 22 to 36 titer can be thus changed into a hard brittle mass with a titer of 50 to 60.

Many attempts were made to accomplish this method, notably some work of two German scientists about 1890, who really discovered the germ of the process now used. The vitally important step taken by the Germans was the use of an intermediate agent called a catalyst, to induce the oleic acid to take up the two atoms of hydrogen.

A catalyst is a body the mere presence of which effects a chemical union of other bodies, but which is itself not affected by the reaction nor itself undergoes any alterations. The first catalysts used were the rarer metals, such as platinum and palladium, but those were so expensive that their use was not a commercial possibility. A further study of catalysts has led to the use of nickel salts, which are cheaper.

The process is by no means a simple one, and to be carried out on any scale of quantity requires considerable expensive machinery, large capital, skill and experience.

Strange to say, the most remarkable thing about this method is that it partially deodorizes and bleaches at the same time that it hardens. While chemists are not able to explain why contact with hydrogen deodorizes oil, it is of course well known that this gas is an excellent bleaching agent. The fact remains that even oils of highly objectionable flavor, such as whale oil, are made almost odorless.

Effect of New Process Yet to Be Realized.

The effect of this process will not be fully realized



JOHN W. HALL
(Sterne & Son Company, Chicago)
Speaker at the Convention.

our industry, and which has attracted so much attention.

The statement that the modern chemist is a magician is so common that the remark has lost much of its meaning. In the days of Cagliostro chemistry and magic were indeed closely related. At that early date the chemist was trying to produce gold out of the baser metals, and he was not successful. Today he extracts gold from materials even less valuable than the baser metals of the old alchemists.

Packers appreciate this point, for some of their most profitable lines owe their existence to the chemist. To make profit margins nowadays would be absolutely impossible if we were not able to realize on the offal. Once again the chemist has made gold—gold for the refiner, the soap-maker and candle manufacturer, so that this new process may well be called the romance of 200 years of the chemistry of oils.

for some time to come, although it has already opened up a broad field in the production of soap-making materials and edible fats.

Dr. Carleton Ellis, probably the best informed chemist in America on hydrogenation, in his address before the Society of Chemical Industry in New York, December 31, 1912, covers this subject exhaustively. He says:

"The treatment of unsaturated oily bodies with hydrogen to obtain saturated derivatives is of great scientific and technical interest. In the fat industry a most fascinating problem has been that of the conversion of oleic acid or olein into stearic acid or the corresponding glyceride.

"Oleic acid and hydrogen combine molecule for molecule to yield stearic acid. Two hundred and eighty-two pounds of oleic acid requires 2 pounds of hydrogen for the production of 284 pounds of stearic acid, and similarly the transformation of olein into stearic requires the use of about 0.68% of hydrogen.

"One thousand cubic feet of hydrogen weigh approximately 5.6 pounds, hence a pound of olein calls for a little over 0.1 of an ounce of hydrogen, equivalent to about 2,500 cubic feet of hydrogen per ton of olein. Thus by weight only a small quantity of hydrogen is required."

While a good deal of work has been done on the hydrogenation of fatty oils, the literature on the subject is very meagre indeed, and only through the patents that have been issued can we gather much that is enlightening.

Results of the Hydrogen Process.

The ability to prepare from ordinary liquid fatty oils a fatty body of almost any desired degree of consistency renders hydrogenation especially attractive in the production of edible fats and soap-making materials. These are undoubtedly two of the most important applications, although hydrogenated oils are likely to have rather wide use in the arts. In the manufacture of lubricants, for example, the hydrogenated fats may be used to advantage.

By hydrogenation, oils which formerly made soaps only of soft consistency, now yield the more valuable hard soaps. This has led to a very rapid development of the art with respect to the production of soap-making fats. In particular fish and whale oils have been made use of, because these oils may be completely deodorized by the addition of hydrogen.

For soap-making this product is satisfactory, as it complies with the test for deodorized fish oil suitable for soap-making, in that the odor of the original oil is not apparent when laundered goods on which such soaps are used are ironed. If, however, the hydrogenation is not carried on to a point where the iodine number is approximately 50 or less, there is some danger that the fishy odor will become apparent during the ironing operation.

It suffices to state that hydrogenated fats for soap-making purposes are being made abroad by a number of firms and are giving good satisfaction. The Germania works at Emmerich, Germany, offers on the market three grades of hardened oil.

In this country satisfactory results are being obtained commercially in the manufacture and use of hydrogenated oils in soap-making. Several plants are operating on a large scale.

Hardening Oils in Making Compound Lard.

Since the addition of less than 1 per cent. of hydrogen suffices to convert cottonseed oil or other vegetable oils into a fatty body of the consistency of lard, it follows that manufacturers of ordinary lard compound (that is to say, a mixture of 80 to 85% of refined cottonseed oil and 15 to 20% of oleo stearine) have promptly turned their attention to the production of compound by a self-thickened cottonseed oil.

The high cost of oleo stearine at times makes the method a very attractive one, and the hydrogenated product from cottonseed oil has the advantage, if properly made, of being very stable in character.

It appears that the hydrogenation of the total body of the oil, by transforming the linoleic compounds and the like, has a tendency to improve the oil as regards its edibility, and certainly gives it greater stability.

It seems to be generally accepted by those who have investigated the matter carefully, that the hydrogenated oils have as desirable a degree of edibility as the oils from which they are derived. It is even claimed that by destroying traces of certain unsaturated bodies thought to be slightly toxic in nature, hydrogenation renders the oil better adapted for human consumption.

THE PRESIDENT: We thank Mr. Hall for his able paper. We will now hear the report of the Committee on Resolutions. Mr. Ogden, gentlemen.

Report of the Committee on Resolutions

MR. OGDEN: Gentlemen, I have the honor to present the following resolutions:

To Stimulate Increase in Livestock Production.

Whereas, Our production of livestock of all kinds is rapidly decreasing instead of increasing, though our population is still on the increase, and

Whereas, No systematic action is being taken to increase the supply so necessary to the welfare of our people, and

Whereas, If this condition continues to exist the supply of livestock, and therefore of meat food, will not be nearly sufficient to meet the demand; and because of this condition the prices of meat food products are rapidly becoming almost prohibitive; therefore

Be It Resolved, That all consumers should urge

called in every way possible to existing conditions, and that legislative bodies and newspapers should do everything possible to stop the tremendous economic losses which are occurring through diseases which are preventable.

Ask Care in Issuing Inspection Regulations.

Whereas, In the administration of the meat inspection law the packers have uniformly endeavored to heartily co-operate with the officials of the Department of Agriculture in making this law a success in every way, and

Whereas, Many of the regulations are unnecessarily severe and expensive, thereby adding to the cost of production, which is already so extremely heavy; therefore

Be It Resolved, That the attention of the Secretary of Agriculture be called to this condition of affairs, and that he be requested to carefully study all proposed regulations and orders before they are put into effect.

Thanks to Speakers, Officers and Others.

Whereas, Those who have addressed us during the convention have given us the benefit of their time and information on the various highly valuable subjects which they have discussed; therefore

Be It Resolved, That a vote of thanks be tendered to such authors of papers and those who have addressed us for their valuable addition to our store of knowledge and to our records.

Whereas, The management of the Hotel Sherman has given us such splendid service for the conduct of our convention and has afforded us such exceptional facilities for the transaction of our business; therefore

Be It Resolved, That a vote of thanks be tendered to the Hotel Sherman, and particularly to Messrs. Behring, Denaby and Hutchinson.

Whereas, We are indebted to our retiring officers for their work and efforts in our behalf, and

Whereas, Their services have been both unselfish and of great value to the organization; therefore

Be It Resolved, That the thanks of this association are tendered to such officers as are retiring at this convention.

Whereas, The banquet, entertainment, press and business programme committees have offered us both entertainment and profit, and

Whereas, they have been untiring in their efforts in our behalf; therefore

Be It Resolved, That a vote of thanks is hereby tendered to these committees and that they be informed that we are deeply indebted to them for their services.

The committee moves the adoption of the report. Motion seconded.

THE PRESIDENT: Gentlemen, what is your pleasure? It has been moved and seconded to adopt the report of the Committee on Resolutions. All those in favor of this will signify it by saying aye; contrary, no. It is so ordered.

Favor Any Laws for Conserving the Meat Supply.

THE SECRETARY: Gentlemen, we have a further resolution presented by the Resolutions Committee, and at the request of some of the important interests, which are practically allied to ours in the necessity for increasing livestock production:

Whereas, Representative Britton has introduced into Congress a bill to increase meat food supplies by prohibiting the slaughter of young calves; therefore, be it

Resolved, That the American Meat Packers' Association, in convention assembled, endorses any legislation that would increase our meat animal food supply.

And the committee moves the adoption of this resolution. Seconded.

THE PRESIDENT: What is your pleasure, gentlemen? It has been moved and seconded that the resolution just read be adopted. All in favor of this signify it by saying aye; contrary, no. It is so ordered.

The next will be a paper on "The Relation of the Board of Trade to the Packinghouse Industry," by E. L. Roy, of Cross, Roy & Saunders, Chicago, Ill.

(In the absence of Mr. Roy from the city, his paper was read by Mr. Saunders, and is as follows):



C. H. OGDEN
(Pittsburgh Provision & Packing Co.)
Chairman Committee on Resolutions.

their Congressmen and State Legislatures to pass such laws and to make such appropriations as will increase the supply of livestock in this country to a number more nearly corresponding with the needs of the population.

To Stop Losses from Disease in Livestock.

Whereas, There is an appalling increase in several forms of disease in livestock, and

Whereas, The Federal Congress and the State Legislatures are not making sufficient appropriations to eradicate these diseases, and

Whereas, We are annually losing millions of pounds of meat food products through these diseases; therefore

Be It Resolved, That public attention should be

THE RELATION OF THE CHICAGO BOARD OF TRADE TO THE PACKING INDUSTRY

By E. L. Roy, Chicago, Ill.

The Chicago Board of Trade is so closely related to the packing industry that if such relation did not exist the industry would lose what constitutes, without any argument, one of the most important factors which makes for the success of practically every packing-house of any consequence in the United States today. For, without the basis of values determined by the daily transactions on the Board of Trade, there would be no definite basis for a packer to figure what his product was worth, and he would be speculating regarding its value instead of knowing absolutely, as he does today, the prices at which he can sell at least 50 per cent. of his product.

One year ago the writer was visiting a Canadian plant; the sales manager received a bid by wire for

work in the cotton industry. Weeks ago when preparations were being made to pick the crop, plantation owners were making their contracts for provisions with which to feed this labor. The owner figured with the jobber, the jobber figured with his broker, the broker with the packer, and the sales were made on the basis of values as recorded by the Chicago Board of Trade.

It is of especial interest, also, to note that the Board of Trade frequently acts in the capacity of salesman for the packer. For instance: A buyer today can purchase on the Board pork, lard and ribs for delivery in October, January, or even May. The product so purchased will be delivered to him just as surely as the month arrives, and special mention is made of this fact for the purpose of calling attention to the legitimacy and value of the future contract as made on the Board, when a buyer wishes to provide for his requirements several months ahead.

Another very important department admirably handled by the Board of Trade, which contributes largely to the packers' welfare, is that which furnishes daily reports in connection with the packing industry. Early every morning there is posted the receipts at and shipments from Chicago of lard, cured meats, fresh meats, etc. This barometer of trade is of the utmost importance, and is generally a fair indication of the movement of product from other packing centers. The Liverpool market on lard and cut meats is also posted daily, and this, too, is of inestimable value to the manufacturer here and to the buyer abroad.

Another important function performed for the packer by the Board of Trade, and one which helps place the packing business on a sure foundation, is the regulations calling for uniformity in quality, weight, cut, trim, average and package. The worth of such "uniformity" need not be dwelt upon here, as all of you gentlemen are familiar enough with the dissatisfaction occasioned by irregular deliveries of product, which we all at times have had occasion to contend with. To insure this uniform standard, which its requirements demand, the Board maintains an Inspection Department, in charge of a Chief Inspector, whose duty it is to furnish certificates of Board of Trade weights and inspection whenever his services are demanded by seller or buyer of product coming into or going out of Chicago.

Importance of the Board's Inspection System.

This inspection system is a very important part of the selling end of the packing business, as the certificate of the Chicago Board of Trade is not only accepted in, but frequently demanded by, practically every market in the world using United States' meat products. This official inspector is frequently called upon to pass on the regularity of weight, packing, etc., of products traded in, and very few are the instances where any dissatisfaction is found with his verdicts; but, in the event of such dissatisfaction, there is provided further by the Board, through the Committee on Provision Inspection, a final court of appeal, before which all complaints may be brought, arbitrated and finally disposed of.

FIRE WASTE REDUCTION IN PACKING HOUSE

By Albert Blauvelt, Chicago, Ill.

Mr. President and Members of the American Meat Packers' Association:

Upon receipt of notice of assignment by the National Fire Protection Association and acceptance thereof by your secretary as a speaker at this convention, I ascertained by conference with Secretary McCarthy that each speaker was at liberty to select a topic, and will speak on "Fire Waste Reduction," as viewed under a particular idea in the direction of reducing the frequency of fires in the packing industry.

One of the notable features of the packing industry, to the outside observer at least, is the tendency of the industry to become more and more self-contained under the influence of the master minds who hold the direction of the industry and its future.

This concentration or capacity of self-containment is well known, and exhibits itself in the extent to which by-products are developed and utilized, transportation facilities developed, icing stations and branch markets maintained, and to some extent a going back to the land and growing raw materials.

Another very important aid provided under the direction of the Chicago Board of Trade for the packer is the registration of packing-house products in warehouses declared to be regular for the storage of such property, and the Board sees to it that before any warehouse shall be declared "regular" a bond, with sufficient sureties, subject to such conditions as may be deemed necessary by the Board of Directors of the Board of Trade, must be filed in connection with such warehouse.

The Board appoints a competent person as Registrar of Provisions, whose duty it is to keep records of all warehouse receipts for packing-house products stored in such regular warehouses. These receipts, after being stamped "Registered," are negotiable, and all deliveries of beef, sheep or hog products in store, in the absence of special agreement, shall be—by the deliverer of registered warehouse receipts—accompanied by certificates of inspection previously referred to. You are all probably familiar with the very great saving in time that such a system affords.

We have touched briefly on the most important features of the Board of Trade's relation to the packing industry. It furnishes every packer who will deliver standard products a regular market, will see that goods brought to that market are sold at the market price, affords him protection in the event of dispute, gives him daily information that he could not obtain in any other way except at an enormously increased expense, and places his business in the front rank of our commercial army.

In concluding, let me suggest that every man here procure a copy of the Board of Trade rules. Reading it will prove not only interesting but instructive, and will show you the closeness of the relation of the Chicago Board of Trade to the packing industry.

MR. SAUNDERS (Continuing): Supplementing the foregoing and following the line of Mr. Bischoff's thought of the other day, it has been suggested that in addition to getting statistics, the Chicago Board of Trade is already interested in the increase of production, not only of grain but of hogs, cattle and sheep. The Chicago Board of Trade is a member of the Council of Grain Exchanges, consisting of seventeen of the leading grain exchanges of America, with a permanent committee, which has established its headquarters in the Chicago Board of Trade, and which has been instrumental in bringing the government, and bankers, railroads, manufacturers and many other organizations into touch with what is known as the "Model Unit Plan," which consists of established county farm bureaus in the county organizations, each in charge of a county agent or manager, in every county of the United States. (Applause.)

THE PRESIDENT: What is your pleasure, gentlemen, with the foregoing?

A MEMBER: I move that the paper be placed on file. Motion seconded.

THE PRESIDENT: If there is no objection, it will be so ordered.

The next is a paper on "Packinghouse Fire Insurance," by Albert Blauvelt, of the Western Factory Insurance Association of Chicago, Ill.



ERVIN L. ROY
(Cross, Roy & Saunders, Chicago)
Speaker at the Convention.

a round lot of refined lard. Glancing at the close of the market which had come but a few minutes before the bid was received, he dictated a refusal, made a counter-offer, closing his telegram with these words: "Chicago market 15 higher." Down through Washington, California; back East through Colorado, Kansas, Missouri; in fact, everywhere you go the same basic value is used.

There are but few manufacturers in the world provided with a market at the end of a wire, every day in the year, where they can sell, if the market pleases them, the product manufactured, or buy what they may have contracted to deliver if they do not wish to manufacture it; and in this particular the Chicago Board of Trade's relation to the packing industry is a most intimate and helpful one.

Practical Service of the Board of Trade.

In the South, today, thousands of laborers are at

Whoever may admire business ability, and whoever may have any conception of the executive efficiency required to do a dollar's worth of business over a thousand-mile stretch with a perishable product on a penny or two margin and succeed, cannot also fail to appreciate that this industry is one example of a very high degree of organization and a very close control over the interaction of many kinds of employees.

Insurance and Its Effect on Employees.

Whether the speaker is right or wrong, the opinion is offered that the employees of the industry do not and cannot have quite the same degree of discipline, and the same fear and caution against fire in the case of property that is insured, as would be the case did the employees know that the property was not insured; or, what would have the same effect on the employee, a knowledge by him that the first cost of every fire came directly out of the pocket of the house, and that any employee would thereby necessarily be held more rigidly accountable by the

house than is true where the loss is wholly covered by insurance.

In short, it is an open question as to whether there is any way possible of preventing the sense of responsibility of employees toward property from being to some degree deadened by the fact that they know it is insured.

If this be true, then comes the question: Cannot a practical plan of compromise be shaped out?

For example, let any large packing house singly, or several houses jointly, direct the accounting departments to get up a list of all fire losses for the past ten years, or perhaps the past twenty years. Ascertain the amount of each loss and look up the sound value existing under the policy form at the time of each loss.

From these figures take note of how much loss would have been left uncovered had the insurance been drawn to provide no cover whatever for the first 1 per cent. of the sound values. Repeat this process at 2 per cent. and 3 per cent., and as far as you like, which presumably would not go beyond 10 per cent. to 15 per cent.

This process would yield a figure at which the financial officer could see at a glance how much he could afford to stand to lose for any one fire.

Make Employees Feel Responsibility for Fire Loss.

Let us assume that a house was disposed to draw the line at, say, 3 per cent. or 5 per cent. or 7 per cent. under its particular experience and judgment. The same figures would then put the house in a position to go to its insurance and say: "Over so many years we have paid in so much premium. Had we left absolutely uncovered this per cent. of our sound values we would have borne losses to this extent. Therefore, if for the future we assume outright the same per cent. of our sound values, you can afford to insure us at a reduced price proportional to the gross of the known past losses below said line, as compared to the amount of premium paid."

While perhaps not worked out in this detail, it is a fact there is a fair sprinkling of such insurance contracts now in force, particularly in marine circles and along the same general idea.

Rightly or wrongly, the writer believes that the foremen in various departments would feel a more direct responsibility, and be more afraid of having a fire, if they knew that the house was totally uninsured for the going run of ordinary or small fires, and there is also a chance that the heads of the house would hold all hands in tighter check for the same reason.

The house and its entire staff would then be, with regard to fire, on the same self-contained basis which is so marked a characteristic of the industry in all of its regular work.

To Prevent Fires in Packing Plants.

Referring to the practical details of fire prevention in packing plants, one of the first things noticeable is that a large packing establishment has so many processes and employs so many trades that there are comparatively few causes of fire that are not to be found in packing houses.

There are, however, a few well-worn rules which will always bear repetition.

First, it is necessary to have a genuine fear of or care against fire on the part of both master and man. The remarks earlier made are in this direction, with the idea of less leaning on insurance and more self-reliance.

Second, cleanliness where apparently unnecessary, and where there is not the slightest visible indication that cleanliness would do any good, is nevertheless a great preventative of fire.

One of the reasons for fewer fires per capita in Europe is the fact that all waste paper, broken wood and trash of every description has a value, and is picked up constantly. The same thing applies in a packing house to corners and cubby-holes throughout the plant, or throughout the yard, even although the trash may be scrap iron. There is a certain something which makes fires less frequent where everything is kept open, clean and clear.

Third, on direct heat hazards—gas jets, soldering operations, furnaces, electric lamp bulbs, cookers and all other uses of heat—an excellent rule is to remember that anything that is not comfortable to the hand will sooner or later set fire to wood.

Therefore, the portable electric bulb too warm for the hand requires to go in a cage; the heat over a gas jet where too warm for the hand requires to be protected; the bottom of a cooker similarly requires an air space. The roof around a boiler

stack requires to be cut away to a point where the hand is always comfortable; and so on, for all uses of manufacturing heat.

Technical and Moral Fire Hazards

The care of purely technical hazards of the industry is too elaborate a subject to take up in the time available, and also is best understood by the respective department experts in the industry itself.

While it is well known that the care along the lines described can greatly reduce the number of fires, it is equally well known that some fires are absolutely obscure in their origin, and appear to be absolutely a matter of fate. It is on this account that the modern regard for safety to life requires automatic sprinklers wherever there are crowded work-rooms, particularly on upper floors where women and girls are employed.

Another phase of the situation which is surely true, unless the entire idea of this talk is wrong, is that it would be reasonable to expect a much greater degree of harmony between insurer and insured.

Under circumstances where the insured takes the direct responsibility and punishment for all small losses, and the insurer at a reduced price simply stands to sustain the commercial credit of the house as against any excess loss, in this way the immediate interest of both parties would always be parallel.

And it seems no more than reasonable to believe that through the action of increased self-reliance, and the effect of better co-operation, the frequency of fires in the packing industry, and the consequent fire waste with its attendant insurance cost, would be reduced.

Presentation of Loving Cups.

MR. CHARLES ROHE: Mr. President, I rise to a question of personal privilege.

THE PRESIDENT: Mr. Rohe.

MR. ROHE: Mr. Bischoff, it is my great pleasure on behalf of the members of this Association to express their thanks for the good work that you have performed during your administration the past year, and as a token of their appreciation, they offer to you this loving cup, with the very best wishes from us all. (Applause.)

THE PRESIDENT: I thank you, gentlemen. Mr. Rohe, haven't you got something there that would do honor to the cup, and fill it and pass it around? (Applause.) I would like to see it passed around.

Now, gentlemen, I suppose you expect a speech on this occasion; but I am sorry to say I am not young and lively enough to talk to you; but I thank you very much, and I certainly appreciate, I shall highly appreciate this token of—what will we call it—gratitude, friendship, and esteem of the American Meat Packers' Association. Gentlemen, I thank you. (Prolonged applause.)

MR. W. H. GEHRMANN: Mr. President, I also ask for a point of special privilege. Mr. McCarthy, our Secretary, a few minutes ago asked me to perform a pleasant duty, and we who are here are always glad to perform pleasant duties.

You know that the office of Treasurer is one of the hardest to fill in this Association. It is not a very pleasant office. It is at times perhaps unpleasant when a party is requested to send in his check, and another request has to follow for the purpose of getting the money. But you gentlemen will notice by the report made by Mr. Roth that he has increased our assets this year as against last year. This certainly shows that the Treasurer has done his duty; and, therefore, in behalf of this Association I wish to present Mr. Roth with this beautiful loving cup. (Much applause.)

MR. ROTH: Mr. Gehrmann, and Gentlemen, Members of this Association, I thank you. I am deeply impressed by this evidence

of your friendship and appreciation of my humble efforts. If you are ever at any time, any of you, in my city and will let me know, even if you are only going through, I will try to bring this over to your hotel and fill it with anything you want, and I think we will have a mighty good time. I thank you, gentlemen, every one of you. (Applause.)

Adjournment.

THE PRESIDENT: If there is no further business before this meeting, a motion to adjourn will be in order.

A MEMBER: I move we adjourn, Mr. President.

(Motion seconded.)

THE PRESIDENT: It has been moved and seconded that we now adjourn sine die; all those in favor of this motion signify it by saying aye; contrary no; the ayes have it, it is so ordered.

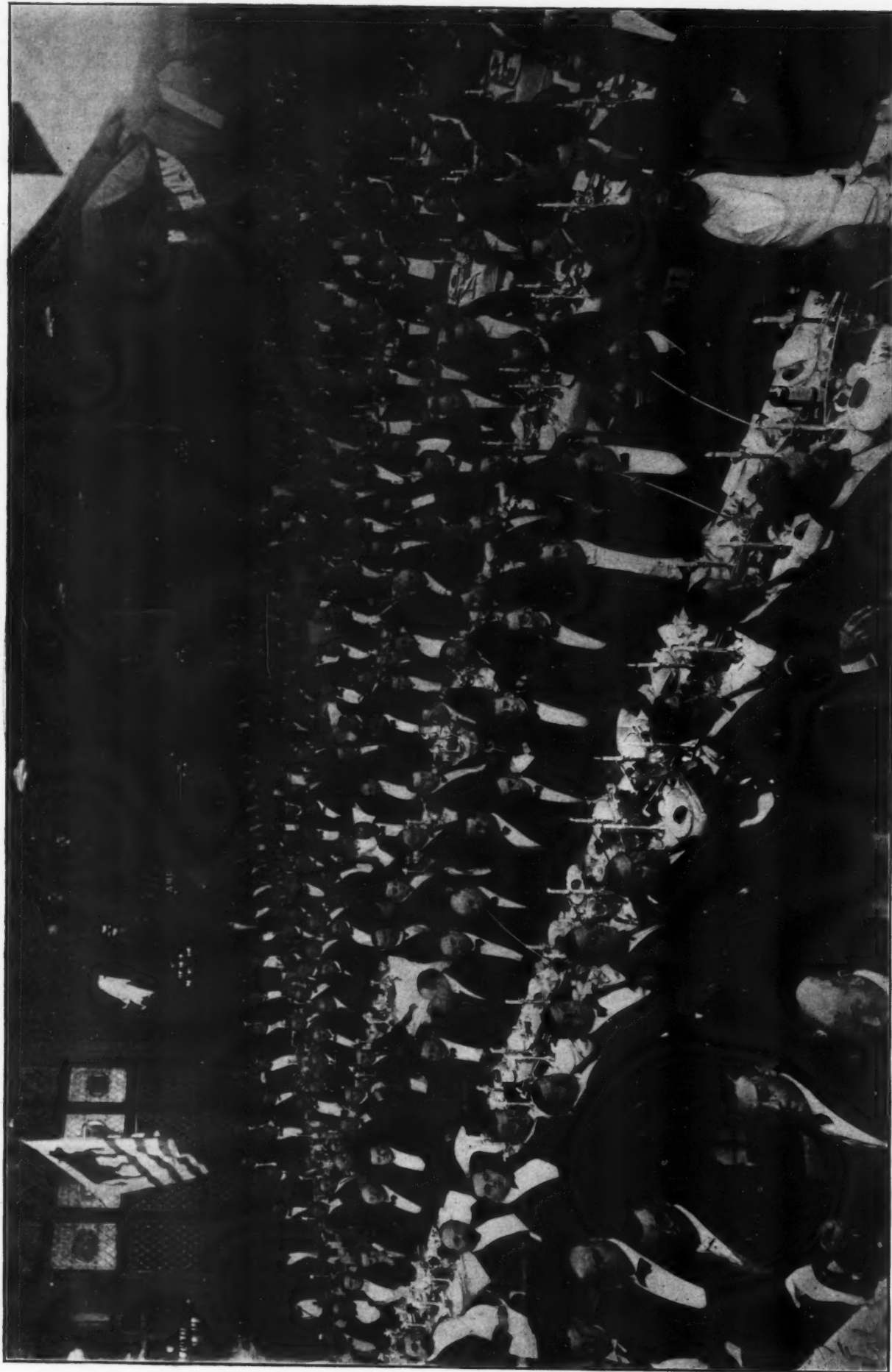


ALBERT BLAUVELT
(Western Factory Insurance Assoc., Chicago)
Speaker at the Convention.

(Whereupon the eighth annual meeting of the American Meat Packers' Association adjourned sine die.)

A CURE FOR BOOKKEEPING ILLS.

The Self-Indexing Bookkeeping System, devised and perfected by the Universal Manifest Book Co., Inc., which has replaced the time-worn home-made systems used by a number of large retail butchers, is an arrangement so simple and so clever that its use promises to become practically universal. The butcher alive to his best interests would do well to look into this new method. This company also makes duplicate and triplicate order books for the retail meat trade.



THE "ENGLISH HUNT DINNER" GIVEN BY THE AMERICAN MEAT PACKERS' ASSOCIATION IN THE CONGRESS HOTEL, CHICAGO, ILL., SEPTEMBER 22, 1913.

THE ENGLISH HUNT DINNER

Most Picturesque of all the Packers' Banquets

SOMETHING different?

Well, just ask anybody who was lucky enough to get inside the Elizabethan room at the Congress Hotel, Chicago, on the night of the 1913 A. M. P. A. banquet. He'll tell you whether it was "different" or not!

After two Old English Dinners (of fond memory), a German Dinner, an American Dinner, a Southern Dinner and a Flank Steak Dinner—it sounds easy to add a few more variations, but if you think it's easy, try it!—after all these, who's to get up something new?

They "put it up" to Laurence Armour as chairman of this year's Banquet Committee, and he did it! The idea of a typical "English Hunt Dinner" was Mr. Armour's, and with the aid of his committee the theme was elaborated into the most picturesque affair in the annals of the Association.

The idea was so good that it was too good to keep, and somebody "leaked," with the result that a garbled and distorted story of what was to come was sent out by the press associations, and tales of a \$450-a-plate banquet were spread over the country. They got a rise out of a Socialist labor agitator, whose innards were upset at the thought of so much good food and drink going around without a chance for him to "get in on it," and his burning words were telegraphed broadcast, also. The news associations were made to retract the libel they had helped to spread, and some fun was had by the after-dinner speakers over the incident, after which it was forgotten. As a matter of fact, the \$10 ticket price covered food, drink, souvenirs, decorations, music and everything—and it was surely a good \$10 worth!

Arriving at the Congress Hotel the guests were ushered into the Gold Room—the scene of former banquets—which, to their surprise, had been turned into what looked like a tailor's shop. Nothing but long rows of tables piled with gorgeous red coats with brass buttons. Each guest was politely but firmly divested of his black dress coat, and fitted with one of the red hunting coats. At one end of the room a pack of fox hounds bayed, and ever and anon a horn sounded the hunter's call.

When all had assembled the Master of the Hounds and his pack led the way down stairs to the oak-beamed and oak-walled Elizabethan Room, where long rows of tables set in the style of an English country house hunt breakfast loomed in the light of hundreds of candles in silver sconces. The room was hung with banners and the guests' table on its elevated dais was separated from the throng by a white picket fence covered with vines. The table decorations were most elaborate and beautiful, each table having through its middle a miniature representation of an English country lane—hedges, horsemen, dogs and other scenic appurtenances duly laid out. The souvenirs were the silver candlesticks and the familiar churchwarden pipes.

As the guests settled themselves in rode a typical old English Squire on horseback, and a colloquy with the presiding officer,

Secretary McCarthy, followed to the amusement of the diners. After the horseman had disappeared the waiters, attired in black, with knee breeches, white stockings and typical English mutton-chop whiskers, served the following viands:



LAURENCE H. ARMOUR
(Armour & Company, Chicago)
Chairman Banquet Committee.

MENU.

Celery	English Savoury Fantasia	Almonds
	Ripe Olives	Radishes
	Oxtail Soup	
	Filet of English Sole, Tartare Sauce	
	Cucumbers Maryland	
	Breast of Chicken and Braised Ham	
	Timbale of Spinach	
	Prime Ribs of Beef	
Potato Rissoles	Yorkshire Pudding	
	Salad A. M. P. A.	
Cheddar Cheese	English Crackers	
	Ice Cream, Diana	
Cakes		Coffee
	Ale	
Apollinaris	Scotch Whiskey	
Cigars	Cigarettes	
	The Banquet Committee which devised and	

carried out this unique dinner was as follows:

L. H. Armour, Armour & Company, chairman.
C. A. Alling, Darling & Company.
C. Healy, N. K. Fairbank Company.
Walter R. Kirk.
E. B. Merritt, Armour & Company.
Harry Freeman, Boyd, Lunham & Company.
W. F. Burroughs, Libby, McNeill & Libby.
Oscar F. Mayer, O. F. Mayer & Brother.
Jno. Roberts, Roberts & Oake.
A. D. White, Swift & Company.
James Agar, Western Packing & Provision Company.
E. A. Cudahy, Cudahy Packing Company.
Jno. Bunnell, Hatley Brothers.
W. J. Mullally, American Can Company.

Opening Incidents of the Dinner.

The guests of the evening assembled in the gold room of the Congress Hotel at 6:30 p. m., and there exchanged their evening coats for scarlet hunting coats of the English pattern of the last century. The company then marched down to the Elizabethan room, which was at first illuminated with candlelight, and during the first course of the banquet the company was surprised by the appearance of a hunter on horseback, who rode the length of the hall, and whose dialogue with Secretary McCarthy caused much laughter.

Later followed through the hall a pack of hunting hounds, in leash, under the charge of the Master of the Hounds and his assistants.

Later, the following occurred:

MR. McCARTHY: Ladies and gentlemen: The souvenirs of this dinner will be the candlesticks which you have in front of you. We try each year to give you a souvenir of the dinner. The souvenir tonight is the candlestick there on the table in front of you. (Applause.)

I am not going to say anything further to you than is necessary, but I do want to say that it is not necessary to move that candlestick to put the dishes on your table. Somebody might come along and attempt to move that in putting another course on, but it is your candlestick and you hold on to it. (Laughter and applause.) I want you to hold on to it because if you don't do it, and come around tomorrow morning and say yours is lost, there will not be any more to be had.

(During the serving of the several courses many songs were sung, appropriate to the occasion, and a general good time was had. When the cloth was removed the speaking began.)

Introduction of the Toastmaster.

MR. McCARTHY: Ladies and gentlemen: Now, that we are full of enthusiasm, it is necessary for us to proceed to the things which always spoil a dinner—we have got to listen to the speakers. It is not necessary, and I never thought it ought to be necessary, for anybody to have to introduce a toastmaster, because my conception of a toastmaster has always been that he was the chief introducer of the evening. Now, when you have got to introduce the introducer, who is going to introduce the introducer of the introducer? (Laughter.)

However, that seems to be the modern plan and the proper thing to do, and the only way I can figure it out is this, that the talent for toastmasters nowadays is so very poor that it is necessary for somebody to make an excuse for them. Therefore, they get somebody like myself—who is always the goat—to get up and shellac him over a little so that you will not see all of his imperfections.

With that in mind—and it is very necessary this evening, I believe—and in order that you may know just about what you are going to have in front of you, I want to say to you that our toastmaster this evening is an ex-treasurer of the United States (applause). After he had proceeded to separate Uncle Sam from as much of the coin of the realm as possible, he got out in time and entered into the packing business. He is the first toastmaster that we have ever had who has been actually, constantly and closely engaged in our business. He is an actual packer.

But I want to say that, being a packer, and especially within the last few years, he has lost all of the money that he separated Uncle Sam from. (Laughter.) And now he is open for engagements. I take great pleasure in introducing you to Mr. William P. Williams. (Cheers and applause.)

OPENING REMARKS OF TOASTMASTER.

MR. WILLIAMS: Mr. Secretary: I trust, my friends, that I am sufficiently introduced. This seems to be a kind of conspiracy, and I am going to bear up under it to the best of my ability. I was never more strongly impressed with the wisdom, the beneficence, and the altogether wonderful provision of Providence that we never know what the future has in store for us, more than I was last Thursday afternoon, later in the afternoon, when sitting in the office and fondly musing over the next week end's beginning, thinking of when I would sojourn at my modest place on Lake Beulah, with all the joys attendant thereto, when my reflections were suddenly and brutally interrupted by the noisy and obstreperous incoming of that incomparable committee of yours—and now I know the committee was inspired by your Secretary—that incomparable committee, Merritt, White and Healy, who informed me with bated breath—and baited with something decidedly aromatic (laughter)—that they were in search of a toastmaster, like Japhet in search of a father, and that I was "It."

With almost brutal frankness they then proceeded to set forth and illuminate and illustrate the fact that having searched in various directions and sought many other high priests in this particular line of talent who had eluded them for this job, they had been reduced to desperation, to "Hobson's choice," and would I please serve? Now, I know that committee, I know them with a knowledge. (Laughter.) And without further parley, I immediately capitulated and accepted.

I told them that I should be delighted to rattle around in the place allotted to one of those famous ones mentioned, men whom I only dared look at through smoked glasses. I told them, further, that while I was modestly dubious as to the outcome of my efforts, yet in all events I could not do worse than the committee had done in their selection of a toastmaster, and make a blunder of the whole job. But as they had taken a chance, so would I; that I was entirely at their service. Not only because of the alluring and flowery way in which they put it, but because there was nothing in the world which I would not do or try to do to assist my fellow craftsmen, the packers. Please spell that just as I said it—"craftsmen," not "graftsmen." (Laughter.)

I further stated to them that at all events I would be entitled to the credit given to a certain wild western sport who fell under the gun-play of superior numbers, such praise being engraved upon his tombstone by his admiring friends as follows: "He done his damndest. Angels could do no more." And though I am here, and while I would have liked better to have been permitted to occupy a less conspicuous position in this notable assembly, I am going to serve you in this position as best I can.

The Duties of a Toastmaster.

Now, toastmastering is fortunately not altogether a novelty to me, and I have even been credited by one or two with being a leader in the reform of the gentle art. It is a popular fallacy that the office of toast-

master is an easy job. Your Secretary would seem to think so, but I want to say that with all the glorious opportunities that go with that high position, the drawbacks must not be overlooked or minimized.

A friend of mine said to me quite recently: "What a cinch you have, just to sit up there and lord it over the bunch and introduce the speaker and then loll back and drink and smoke till he has finished his remarks, and then introduce another, and repeat." "Yes," I said, "that may be the way it looks to you; the toastmaster may put up a bluff to have it look that way; but in such cases usually I am taking a firm grip on myself and trying to keep calm and not blow up, while I am racking my brain, trying to pull myself together for what I will say next."

Hence, a toastmaster must admit that he is like the Irishman who came to this country and wrote back home that he had a job that

make brick during my spare time." (Laughter.)

Now, both of these archaic illustrations dealing with brick present themselves, and I don't know why, unless it was because my mind wandered naturally to the article which I would have preferred to have used on my friends instead of the soft answer.

My friends, a toastmaster has no time to make bricks as he sits up here attending to his duties; he has his duties. With all my apparent bluff and devil-may-care air, or perhaps I should say all my apparent devil-may-care air which was all bluff, I am always apprehensive till the last tap of the gavel closes the proceedings and I realize that it is over and I begin to get over the scare that I have had in the back part of my head.

The Greedy and Brutal Packers!

Tonight, for obvious reasons, I am perturbed, and more particularly so because I see before me here a rare gathering, an exclusive coterie, a group of men with characteristics so biased and abnormal that a mere description of them had to be written in the cool latitude of Minneapolis to avoid spontaneous combustion. (Laughter and applause.)

That surprising and certainly unusual spectacle would make Lucullus look like a piker at a free lunch—each one of you with \$215 worth of choice viands stored away in your alimentary and digestive apparatus. Just how any one equipped like that is going to ride a horse or chase a fox I cannot say; but I am nervous over this situation.

When I read Tom Mann's philippic and his characterization of you as possessing the attributes which marked particularly the inhabitants of Joliet and Sing Sing and other retreats of like nature for the purpose of retirement, I said to myself: "Surely I must be kind to these men and not anger them, or my innocent blood, too, may stain their insatiate natures. And I began to see them, feeling that way, what these hounds are here for, and why you call this a "Hunt Dinner." (Laughter.)

It looks as if I had been hunted by the incarnation of the committee up to date. Do you wonder I am nervous? Fortunately, I am a philosopher and have been schooled to withstand contumely even. I do not know what to call the Secretary's recurring josh in the retort courteous. I get it sometimes from unexpected sources. I think Mrs. Williams is the best mentor along that line I have, and sometimes she surprises me by clipping my wings and bringing me down, too.

Just what she meant, I don't know, but she "handed me one" a while ago. I had been to a banquet the night preceding, and my friends were very courteous to me and said so many nice things and so many true things, and on one occasion the President put it on particularly thick.

When I went home, Mrs. Williams said: "What happened tonight, particularly gratifying?" I retold his speech to her, and I don't think it lost any in the telling.

She said to me: "Did he really say all those wonderful things about you; did he attribute to you all those great qualities?"

"Yes," I replied.

She looked at me with a merry twinkle in her eye, and said she: "Dear, I hope you are not leading a double life." (Laughter.)

Introducing the First Speaker.

Now, I tell that story, which would be slightly egotistical, possibly is, but I tell it more freely because the first speaker of the evening has rendered it difficult for me to say anything worse about him than I am personally willing to do, because I don't know how many worse things he may be likely to say before the evening is through, and I want to forestall it.

I always tremble when he gets on his feet, no matter how conciliatory I may be in my introduction. I have tried every known method of introduction with him; I have bullied him, browbeaten him; I have pleaded with him for mercy; I have tried in every known way and some unknown ways to



R. MANNHEIMER
(Evansville Packing Co., Evansville, Ind.)
Member Executive Committee.

was so soft that he was ashamed of it—he had nothing to do but carry the brick up in a hod, and the fellow up there did all the work. I said to my friend that his conception of a toastmaster's duties reminded me of the landed proprietor who hired a man to work on the place and said there was not much for him to do there, told him he could just take care of the farm and crops, cultivate the corn and clean the rigs and curry the horses, milk the cows, wash the harnesses and cut the lawn, and run the incubator, and take care of the chickens and just generally keep track of things. "Sure," said the man, "you don't happen to have a clay bank on the premises, do you?" "Why, no," he said, "why do you ask that?" "Well," said he, "you had, I thought that perhaps I might

please him, but always with one result. I have introduced him in terms at times so eulogistic that I fear they seem to be untruthful. (Laughter.) And I got it in the neck that time.

However, I am tonight under such deep obligation to him for having so promptly and courteously consented to come here and speak, that the amenities of the occasion force me to be gentle with him, much to my regret. I promised him if he came that he should ride on a horse and enter in state, but this inducement he waived. (Laughter.) I then told him that a rain check went with every banquet ticket, and in case we did not pull the banquet off, he could probably turn in his ticket at a slight discount—on the \$215. (Laughter.) This seemed to appeal to him.

I will not take more of his time, which he can use so much better than I can. I present to you, my friends, the scholar, logician, traveler, student, philosopher, lecturer, eminent divine, this well known wit and reparteeist, this eloquent speaker, a man whose language is so elevated and torrid that once when he spoke in a banquet hall equipped with an automatic sprinkler system his burning words fused the plug and almost drowned us. (Laughter.) I never saw so much water at a banquet in my life.

This friend, philosopher and guide, this patriotic, loyal, public-spirited citizen and—better than all those, a prince of good fellows—Dr. Rufus A. White. (Applause.)

ADDRESS BY DR. RUFUS A. WHITE.

DR. WHITE: Mr. Toastmaster, ladies and gentlemen: I am surprised and gratified over my friend's introduction of myself to this brilliant, intelligent and agreeable audience, inasmuch as for the first time in my experience with him in his introductions of me to various audiences he has really told the truth about men. (Laughter and applause.)

Noting the very happy and delightful way in which you have been spending the evening up to this time, I was very reluctant indeed to break in upon your festivities. I felt a little like the toastmaster at a great banquet which was given to Joseph Chamberlain in the city of London, and where this great English statesman was the guest of honor. He had had a most delightful dinner, and the opportunity of sampling some most excellent cigars and every one was enjoying himself hugely, when with that peculiar felicity which certain toastmasters have for putting their foot in it unknowingly, or unintentionally, the toastmaster arose, called the audience to order, and turning to Mr. Chamberlain said: "Mr. Chamberlain, shall we let the people enjoy themselves a little while longer, or shall we have your speech now?" (Laughter.)

Had Heard the Association Was a Dead One.

You know, I had heard, it was rumored to me, I don't remember from what source it came, that the Packers' Association was dead, gone out of business, defunct, non-existent. But noting you here tonight, I could not help recalling an old, old story that I don't know that I have told for many years, of the man who had been away from home for some time, and desiring to take home some little memento that would make an impression upon the family, he bought several pounds of Limburger cheese.

He put it in his grip and boarded the train. He had gone but a little ways when a brakeman came through and said: "My friend, you will have to get off at the next station." "Get off nothing," he said, "I bought my ticket through to a certain place, and I am going to go there." "No matter," said the brakeman, "you are going to get off at the next station or I will put you off." So he got off and waited for the next train, and repeated the process at the next station.

He was determined to carry that Limburger cheese home at all hazards, so he went up to a little place there and bought a coffin, and he put this three or four pounds of

Limburger cheese in it and had it placed in the express car. They had only gotten a little way out from the station when a big conductor came around, one of those real nice, warm-hearted sort of chaps, you know. He came over to this man, to where he was sitting, and he put his hand rather familiarly on the man's shoulder and he said, "Is that your coffin box up there in the express car?" "Yes," the man said rather shortly, "that is my box." "Your wife?" said the conductor. "Yes," said the man, "my wife."

He leaned over a little closer to him, his voice took on a very sympathetic tone and he said: "My dear friend, you at least have one consolation, she is not in a trance." (Laughter.)

I am persuaded—not for the same reason, believe me—that this is a very much alive organization. I can see that one has got to



HOWARD R. SMITH
(Jones & Lamb Co., Baltimore, Md.)
Member Executive Committee.

be rather vigorous and up-to-date to follow in your trail tonight, or at any time.

I remember the incident of the old farmer who had borrowed a neighbor's mule, and when the night came he told his boy to take the mule home. So the boy started with the mule. He had gone down the road a little way when the mule balked and refused to go any farther. The boy whipped him, pulled him, coaxed him, talked to him, but it was no use, the mule would not stir. Just then a doctor came along, and seeing the predicament of the boy said: "What is the trouble?" The boy said: "This mule won't go." The doctor said: "I think I can fix him." So he pulled out a bottle of carbolic acid and poured a generous amount on the mule's back, and the effect was simply startling to the boy, and to the mule.

The mule started down the road at a gait

that he himself never for a moment had any idea that he could hit up, and the boy looking after the mule in perfect amazement, turned to the doctor, and he said: "Have you got any more of that stuff?" The doctor said: "Sure." The boy said: "Have you got a whole lot of it?" "Certainly." "Plenty of it?" "Yes." "Well," he said, "Doctor, I want you to pour some of that stuff on me; I have got to catch that mule." (Laughter.)

A Hard Bunch to Catch Up With.

Now, you are a hard bunch to catch up with, and my friend Williams here is a hard and a difficult man to follow. When Mr. Williams called me up—for really, he is responsible for my being here tonight, and I think it has worried him some—he justified himself because he was going to act as toastmaster on this occasion by informing me of the fact, which up to that time I had not known, that he himself was a packer. Now, I don't know to this minute whether Billy really intended that as an explanation or as an apology. (Laughter.)

Now, so far as I am concerned, I don't have to apologize for being here. I am a consumer and I have considerable stock in this Association, though I am not a member of it.

Now, I don't want you to think that Mr. Williams gets me invited to a banquet where he is serving as toastmaster because he thinks I have any particular ability as an after-dinner speaker, nothing of the kind. It is simply due to the fact that I am the only man in Chicago whom Mr. Williams can so brutally abuse as he abuses me, without running the risk of getting shot. Of course, he may possibly get "shot" yet before the evening is over. (Laughter.)

A man called me up this morning, or rather this afternoon, and he said, "Do you know William P. Williams?" I said: "I know Mr. Williams." He said: "Do you know where he has moved to?" I said: "I don't know." He said: "I am sorry, because I want to see Mr. Williams the worst way." I said: "Look him up at the packers' banquet tonight, and you'll see him that way!" (Laughter and applause.)

They came around and asked me to select the subject that I would talk on tonight. They asked me what it would be, and I told them the subject would be "The Social Side of Business." They looked a little anxious about it, as though they did not feel sure that that was something they wanted. Now, it is always hazardous to let another man choose your subject, especially if a preacher, because he can turn to his manuscript barrel and pick out an old sermon under those circumstances, and preachers always rush in where angels fear to tread. But I felt greatly honored as the only man in the United States that could do this job, and therefore I said, "Why, yes, I will do it." Of course I feel a little like the Irishman who strayed into church one evening. The minister had chosen a portion of Scripture relating to the sheep and the goats, and this Irishman, by the way, was a little intoxicated as he straggled into the auditorium just as the preacher said: "Who would be a goat?" The Irishman went somewhat unsteadily down the aisle and said, "See here, rather than have this show stop, I will be the goat myself."

So Williams and I are here together. He may be inclined to think he is the goat, but I am inclined to think I am another.

The Serious Side of Things.

Now I really suppose that an intelligent audience like this—while you are here chiefly for pleasure and sociability—would hardly excuse me if I did not in some degree attempt at least to say a few serious things that I might really desire to say.

I must say frankly I am not going to say anything that will get me into trouble with this crowd. Of course I am a little disappointed in this banquet in one way, and I may as well tell you that now. I was led to believe, in fact I had been credibly in-

formed, that this banquet was to cost \$215 a plate. I understand it cost but \$10 a plate.

Now Williams and I very seldom agree to appear at any banquet at less than \$100 a plate, and in talking it over this afternoon we really agreed that on the one hand we felt as though possibly we had been deceived, and, therefore, that our appearance, in view of that fact, was rather a large concession on our part to the Packers' Association.

Now, they say that there has been some little misunderstanding between the consumers and the packers; but I do not pretend to know anything about that. I am not going to enter into that controversy because I feel like Mark Twain at a banquet once, when everyone in his particular vicinity was discussing very earnestly and at times very loudly that very important question of Heaven and Hell. Mark said nothing either way, and a very curious lady sitting near turned to Twain and said: "Mr. Twain, I have noticed that you have not said anything during this discussion, you have not entered into this conversation at all." "No," said Twain, "I have kept very quiet because, madam, to tell you the truth, I have friends in both places." I feel that same way myself.

The Social Side of Business.

Now then, so far as a serious word is concerned, I know that you are in no mood to be detained very long. This subject, "The Social Side of Business" did not at first very much appeal to me. I am not a business man, I am a preacher. Someone said to a preacher's boy: "I understand your father has gone down to Elgin to work." "Oh, no," he said, "he has gone down to Elgin to preach." So preaching is not considered a business, and I do not pretend to know very much about business.

But on this question of the social side of business—I am a long way away from my Latin, from my Caesar, my Horace and my Cicero, but I have a sort of suspicion that our word "social" comes from the Latin word that means to join, to unite, to share, and these words have a very large meaning; they touch life at many important and infinite points. The popular use of our word "social," therefore, refers merely to the social amenities of eating and drinking together, but that is only a very small section of the full meaning of a very large and circular word.

The social side of business, therefore, it seems to me, refers to the matter of co-operation and team-work, of pulling together. It means collectivism as opposed to individualism. It means combinations instead of mere individual effort.

The Value of Combination.

Now, if you attempt to enter into any comprehensive analysis of it, you will see that possibly from the very beginning of the world two forces have been fighting for supremacy in the world's life. Individualism on the one hand, collectivism on the other, and so important have these words been and what they connote, that they have built themselves into respective philosophies, the philosophy of individualism and the philosophy of collectivism, and the battles have been fought out, therefore, between these two, not only in the great field of practice, but in the field of thought. In the great vast world of human life where men form their theories and philosophies and throw them out at last into the world of realism, individualism has had its place in the world, and it has today, but it belonged to the simpler and more primitive form of social life than that in which we are living.

If you will permit a personal reference, I was brought up as a young man in Pennsylvania, in the country. We lived there in a very individualistic way, it was a simple business that we had. We had our land from which we could raise our own wheat, our own corn; we had our own tools, we did our own milling, we ground the wheat, we had our blacksmith shop, we had our carpenter shop, we had the loom, where the

dear old grandmother, with the fading light of life in her eyes, flung the shuttle to and fro, weaving the carpets for the country home or the coarse homespun for the boys.

Now, there was very little of co-operation, just the primitive beginnings of co-operation, but it did not make any difference there. If there was a farmer across the lane who said he would not sell us wheat, why, we would go ahead and raise our own. We raised our own beef, we killed it, we consumed it. We were producers, middlemen and consumers. We asked no odds of any one, and our primitive mode of life was based upon that of the individual; and I want to say now that that individualism in those past years produced great results at times, and it has produced over this country great and magnificent men and women.



MYRON McMILLAN
(J. T. McMillan Company, St. Paul, Minn.)
Member Executive Committee.

A New Kind of Business Was Inevitable.

But to make the story as short as possible, of course when population increased and the business situation grew large, and people moved into the great areas and cleared away their lands of their virgin forests, a new necessity arose and a new kind of business was inevitable.

I emphasize this, because there are so many thoughtless people today who look at the vast combinations in business in our modern times as simply the device of crafty and unscrupulous men whereby the great masses of the people may be more easily exploited, that greed and selfishness have taken advantage of this new and magnificent opportunity to do that. I do not doubt some have done that. But as a general proposition, however, the great combinations of business represented here tonight by these intelligent men have grown up as an abso-

lute social necessity, and the day of individualism has passed away forever, and the social side of business, which includes combination, co-operation, union, team-work, working together, has come in to take its place.

Now then, I have no doubt that this new thing in the world that has come to stay carries with it many dangers and has produced many problems. Only one of these problems I submit to you. It is an open question whether it is a problem or not. You may not agree with me in the least, but sometimes I rather tremble, not because I do not see the inevitableness of this tendency, but because in this mad clamor for co-operation, for team-work, and all that sort of thing, it seems to me sometimes that I see increasingly that the individual is blended, that individual ability is being more and more submerged in the great machines.

Do Not Crush Out the Individual.

Now, I want to say to you, it may not be true, you business men may not agree with me, but I want to say to you business men this, that I have been not simply a student for many years of the things of the world even, for I am a preacher, and I can see that it will be a sad day for this nation and for any nation if through this inevitable trend of progress and co-operation, you shall at last submerge, beyond recognition and beyond the possibility of resurrection, the individual, and crush out individual initiative and individual effort.

But you say all organized business offers great opportunities not only to the few, but to every man in its employ. Yes, the opportunity is offered, but the places are not there. If in any great department you have twelve men equally capable of being the manager of that department, it is perfectly apparent that only one of those men can attain to that prominence, and the other eleven men must shift for themselves; and as all other businesses are equally organized, you see exactly what happens.

Now, gentlemen, it is not because you will it so, it is because it is in the very nature of the thing that has been evolved by the growth of society. And I want to say still further that, in my judgment, in just the degree that in this way you co-operate, and the co-operating lines close in, in just that degree you kill small business, in just that degree you have weakened the citizenship of the worker. Because, say what you will, the man who owns something is the man who has a stake in affairs, and who takes some interest in his community and cares infinitely whether his taxes are high, or whether they are low. But the moment a man feels that he has lost his individuality, is a mere employee of a great corporation, not only does he lose his ambition and initiative, but you have killed the sense of citizenship and the responsibilities of citizenship in that man.

Now, I will not follow that further, but I present it to you as a problem. Perhaps it is true that it is not a problem at all to you, but it does seem to me this is one of the problems arising in connection with the co-ordination and co-operation of business that you have got to deal with. Then how can you merchants continue to carry on this vast social side of business, one side of which manifests itself today, and which at the same time seems to tend toward the wiping out of individuality, and yet must have along with it infinite opportunities, chances for initiative and a chance for individual effort?

At the risk of tiring you, let me use this illustration:

How Individual Becomes the Machine.

A few weeks ago I spent three days, three beautiful days in a spot in Belgium that I had visited on former occasions—the battlefield of Waterloo—and I recall now without going into detail that there was an instance of the most perfect subordination of the individual to the compact mass. I went on to the ground where those terrible scenes were enacted; seventy thousand men on either side and a battle line less than three miles long. And more than that, the decisive por-

tion of that battle was fought out on a line less than half a mile in length.

There was co-ordination, there was team work, there was concentration with a vengeance. Kellerman and Ney led against the English squares those splendid French companies and regiments, and the French cavalry broke across that vast field, riding stirrup to stirrup, and flung themselves upon the invincible squares of the armies of the allies. The cannon roared and thundered and cut great swaths and pathways through those advancing masses, and yet the stern word came "Close up! Close up!" And they closed up, and on they went.

And in that there was no individual initiative, every man moved with the mass, he had nothing else to do, he moved with the mass and was compact, and the individual was helpless in that mass. When the French cavalry charge came to the edge of the unknown-to-them sunken road, long since disappeared, the front ranks trembled on the edge of the abyss and were forced into it by the ranks following them; one rank after another was flung into that sunken road until it was filled to the level, and the remnant of the French cavalry charged across that bridge of dead and dying, screaming, writhing mass of horses and men, and flung themselves in an ineffectual attack upon the English squares.

Now, gentlemen, I read the other day of a great battle in Bulgaria. I want you to get the contrast. Here was a battle between the Turks and Bulgarians near Adrianople. There were not many more men engaged on either side there than at Waterloo, yet the battle line was over one hundred miles in length. Curious, isn't it, that while business the world over is tending toward concentration and attack by masses, military science is tending more and more toward the open order of fighting, freedom for the individual, giving him a chance to swing and fight and use something of his own judgment.

But there were one hundred miles of battle line of Bulgarians against one hundred miles of Turks, men dodging from rock to rock, or from tree to tree, firing at will, and away back there fifteen miles away out of sight of the battle itself was the master mind, the general, sitting at a table surrounded by maps and orderlies and by a mass of telephones and wireless, directing the fortunes of that open order line of battle fifteen miles away.

Now, there was a situation in which you had the absolute co-ordination of all parts of the army, directed by one great master mind, and yet it was deployed, it was used, it was flung against the enemy and the great force of individual initiative was alive.

Gentlemen, something of that kind has got to be worked out in business, in this rapid advance of co-ordination and co-operation and team work. I do not know how to solve it, I simply suggest it.

Business Confidence Is a Vital Thing.

May I detain you just one other moment. There is another side of business in a simpler way that is very important, and I am sure you men appreciate it, and if these younger men do not appreciate it they ought to. The social side of business is that they like to get together and look into each other's faces.

That is the one prime thing, the one living subject of modern business, which is business confidence. What is business worth without confidence? A large part of the business of this country is done upon credit, and a very large portion of that credit rests not upon actual collateral, but upon the confidence that you have in your business associates, in the honesty of the men who are engaged in the great business enterprises of this world. In just the degree that suspicion arises, in just that degree business is weakened, and you know that much better than I do.

Now we often have our suspicion of men because we know them, but more often we have confidence because we know each other so well. Usually men suspect other men and

lack confidence in them because they do not know them.

Traveling in Europe, as I do from year to year, you will note still even in these days an element of suspicion on the part of foreign people against us, and perhaps we share something of that suspicion on our side, and the reason is we do not know each other. Go and look into the face of your Frenchman—and we have a splendid representative of the French nation here with us tonight, one of the most splendid nations of the world. (Applause.) Go and look into the face of our German friend, hobnob with him and grasp his hand and feel the red blood flowing through his veins, then go and look into the faces of the hardy Norsemen, fighting their life battle up there amid the winds



JOHN THEURER

(Theurer-Norton Provision Co., Cleveland, O.)
Member Executive Committee.

and music of the sea, and when you know them you will find that although their language is different, their customs somewhat differs from ours, they are like ourselves, men with like hope, with like ambitions and dreams, and you come to know these men and your suspicion vanishes.

Lack of Confidence Hampers Trade.

What is the matter with South America today, and American trade with South America? Because they do not trust you up here; that is why. How are you going to break down the distrust and invade that great Southern part of America as you ought to do? Only when you can go down there among them, see them face to face and shake hands with them and feel the red blood tingling in them as it tingles in you. Then your suspicions and their suspicions will vanish, and you can enter into business relations, and you can do it under no other circumstances.

Gentlemen, you have your organization; you have created this large degree of confidence here among yourselves because you know each other. Why not extend that to the farmer on the one hand and the consumer on the other?

I am not here to preach to you. If there were no consumer the farmer would live because he has the soil; but if there were no farmers the consumer and middleman would alike, under our present system, starve to death. The consumer could not do well without the confidence in the great organized distributing business interests of America today. Now, here is a trinity of interests that should not be separated; they ought to be united in one great unity, because if there were no consumers or farmers you packers could sell your magnificent, gigantic plants for old junk. You would have no place in the world.

The question of today—and perhaps you know it as well as I do, and it sounds like good plain common sense to me, but you must remember I am only a preacher and you must make allowances for me—the slogan today is Efficiency, to do things, big things, great things. How are you going to have efficiency without the existence and the spread of this so-called social side of business? You have got to have it for the interchange of ideas.

Now, usually a man is not obliged to give his ideas to his fellow men. There are ideas that are patentable, they are subject to copyright, and I think that after-dinner stories ought to be subject to copyright, as per adventure, in a burst of generosity, I whisper my best story in the ear of my friend Williams, and he immediately capitalizes it, lays it away for the next banquet, and goes away and straightaway forgets from what source this story came. (Laughter.)

The large mass of human ideas must be interchanged. You want to interchange them. It is a commonplace saying in this day of big business, in this day of tremendous demands upon business in a big world, in a big country where everything must be done in a big way, that we must work together. And how in the name of heaven are you going to do it except through team work, except pulling together, except standing shoulder to shoulder?

Look at Chicago, the most magnificent city on this globe in its potentialities. (Applause.) Paris, Berlin, Copenhagen, Stockholm, Hamburg and like cities have stood for centuries, and are far ahead of us by many years in many things, but give us another one hundred years and we have great potentialities. Look at our Michigan avenue; in twenty-five years it will be absolutely—and I know almost every city on the face of the globe—it will be absolutely the most magnificent thoroughfare in any city of the world. What could this city have accomplished without the individual initiative, without individual effort and without co-operation on the part of the government and individuals?

I was at an old settlers' banquet a while ago, and they were telling of Chicago seventy years ago. They were talking about this same Michigan avenue, and in those days they used jackasses and mules for their teaming. An old settler said right out in front of where the Auditorium is now there was a great mud-hole, and that after a heavy rain they put up a great sign there, "This mud-hole is neither passable nor jackassable." (Laughter.)

Another old settler sitting at the banquet table heard that story. At an old settlers' banquet when they begin to tell lies to each other of what happened years ago, you know there is something doing. This other old settler listened to this strange story with great amusement, and finally he said that he knew of another mud-hole in Michigan avenue, pretty near the one that this man spoke of. He said one day after a hard rain he was looking out there, and he saw a very nice looking silk hat floating along on top of the water. He went to it and picked it up, and, much to his amazement, he found a man under it. He said: "My dear sir, is

there anything that I can do for you; you seem to be in trouble?" "Oh, no," the man said, "I guess I am all right; I am on horse-back." (Laughter.)

Co-operation Is the Keynote of Success.

Now, gentlemen, may I keep you one moment longer. I really got interested in this thing, and if I had you in my church with plenty of time I could have done this thing very much better. I could have gotten hold of your minds very much more perfectly because I want you to hear it.

In the matter of confidence, in efficiency, in success, the time has gone when the individual working alone can accomplish great things in this modern social life of our times. You know, and I know, of the red blood tingling through the veins of these young men in particular, to whom life is just opening in all its great and vast possibilities, that you are living in a big time that demands big things of you, and these splendid young men—oh, I would like to go back and begin it all over again—these splendid young men must remember, not only are big things awaiting you and demanding the best things that you have to give for their solution, but you are living in a great country.

I have nothing to say in derogation of France. I know my friends there, and I love it; and of Germany, with her swift flowing Rhine, where it flows between the purple banks and vineyards like another Bacchus; and I love Italy with her hills and chateaux and old ruins by the Tiber. But your country, and my country, at least to us is the greatest country in the world.

I wish I could give you some figures of the extent of this country. Do you know that Texas, the one State of Texas, that you might take and put the entire population of our country into Texas today, and it would not be as densely populated as many of the old countries across the sea? With all respect to my friend here from Paris, if Texas were an inland sea and France an island in that inland sea, every portion of France would be out of sight of land.

Do you know that we live in a country literally where the sun never sets? For scarcely have the retreating rays of the summer sun given its departing kiss to the glacier peaks of Alaska before they are shining upon the fishing smacks of Maine.

Oh, what a country it is! Other countries may have passed the noon of their national existence. They may be sliding, as perhaps some of them are, down the afternoon toward the evening and the twilight of their national existence. But America, thank God, is in the morning, and the day is before her, and the twilight and the night is far away.

And all that this country stands for, and all that it means, its splendid principles of democracy, smirched so often by greed and carelessness, yet the great principles, always brilliant and beautiful and strong and all that it means, are symbolized by the flag whose blue we caught from the summer skies, whose stars we plucked from the midnight heavens, whose white we took from the rising sun, whose red we caught from the blazing morn, the flag that never knew shame or bowed to a foe—the Stars and Stripes! (Applause.)

The Toastmaster Talks Some More.

THE TOASTMASTER: I am sorry we have so many suburbanites who must catch that owl train, but the evening is young yet, and you must please remember that we did not start the best part of the ceremony here until quite late, so that very little time comparatively has been taken up in this most delightful part of the banquet. Will those who are retiring please do so as quietly as possible in order that we may proceed with the entertainment of the evening.

Now, I did not mean to stir Dr. White up as thoroughly as it seems that I did. I don't think I will ever do it again, because he came back too vigorously. It reminds me of a certain Senator who went back to his native home after a very successful career at Washington and elsewhere, and was greeted by his friends and wine and feted and dined and carried around and made speeches every-

where they went. But there was one individual in the audience who claimed an acquaintance with the Senator who always broke in and said: "Hi, there, Senator, do you remember that time down in Washington when we got full?" and so and so, and then they would choke him off. Well, this happened half a dozen times, and finally the committee, finding they could not suppress this man, a committeeman on one of his outbursts turned to the Senator and said: "Senator, who is your friend, anyhow?" "Good Lord," he says, "I don't know, but ain't he hell on reminiscences?" (Laughter.)

Greetings from Samuel W. Allerton.

Now, I want to inject right here just one word, and convey to you the greetings of a man whom you all know, and with whom I fortunately have been associated all my life since I have been in this city, and quite recently in a more intimate relationship in this particular line, and a man who is probably the Nestor of you men of this particular line of business, the Honorable Samuel W. Allerton. (Applause.) He wished me to convey to you his warmest greetings, and to say that he regretted exceedingly that he could not be here tonight. He, however, is well along in years, though mentally and as far as his faculties are concerned he is just as young and vigorous as any of us, a marvelous man, and he sends his greetings and best wishes and "Good bless you." (Applause.)

Now, I am going to hurry along and eliminate a lot of stuff that I had in mind here, and proceed to the next feature of the programme.

MR. McCARTHY: Mr. Toastmaster, may I interrupt just a moment at this place?

THE TOASTMASTER: Indeed, you may.

Toastmaster Gets a Red Hat.

MR. McCARTHY: The Banquet Committee is interested in a remark that you made a short time ago. Speaking of reminiscences, the poker game that you spoke about, they have sent word up here that in the last game in which you played with them they have lost track of the actual score, and they have lost track of the I. O. U.'s, although they remember the fact that you had five aces on the last deal. They cannot keep a strict account of the whole score, but they want to square themselves with you, and so the Banquet Committee presents you with this token of their esteem. (Presenting a red silk hat.) (Laughter and applause.)

THE TOASTMASTER: I must plead guilty to the gentle indictment of my friends, and they can make the worst of it. Whatever I may have done would not begin to compensate me for what I have left on previous occasions with that bunch.

So far as dealing five aces are concerned, you have all heard the story of the man who said: "Why, did you see that fellow there; why, that fellow dealt four aces right from the bottom of the deck." And the other fellow says: "Well, what of it, isn't it his deal?" (Laughter.)

Now, the next speaker on the programme complained to me at lunch today that he had been misinformed as to the character of this banquet. He supposed that it was to be distinctly stag, and he was staggered to find later on that there were to be ladies in the gallery. This necessitated a complete shifting in the line of stories which he had prepared. (Laughter.) I proceeded to vise a number of them, and really there was nothing so very risqué about them that he need have been alarmed, but he seems to be sensitive and of a very careful nature, and as he is a specialized story teller he immediately changed his plan and shifted very promptly.

He was as ready to make a change in the line of his narratives and to adapt himself to the new circumstances as the actor who came to the manager and said: "Look, here; I want some money; I want some money, and I have got to have it." "How much do you want?" "Well, I have got to have fifteen cents." "Great heavens, what are you going to do with all of that?" "Well," he says, "I will tell you; I want to get a shave. Don't you know that I have been here for two weeks without a shave, and we play

'Romeo and Juliet' tonight? Won't I make a pretty looking Romeo with a two weeks' growth of beard on my face?" "All right," said the manager, "we won't play 'Romeo and Juliet,' we will play 'Othello.'" (Laughter.) So he shifted as quick as that. I sympathized with him. The ladies need not leave. I will personally guarantee the character of all the stories. (Laughter.)

I want to make it as easy as I can for our next speaker here, Mr. Lash, and put him right, because he has good stuff in him, and from this information you cannot tell where it will land you.

I am reminded of the boy who came home from school one day with tears in his eyes and his father asked him, "What is the matter, Frank?" "Well," he says, "I got licked at school." "Well," he says, "what was the cause of it?" "Well," the boy said, "you are the cause of it." "Why," his father said, "how so?" "Well," the boy says, "I asked you yesterday how much a million dollars was, and you told me, and when I told the teacher today she licked me." The father says, "What did I tell you a million dollars was?" "Why," he says, "why, you told me it was a hell of a lot, and it wasn't the right answer." (Laughter.)

Now, I welcome our next speaker, who comes originally from California, raised and educated in New York, within forty minutes of Broadway, and now comes out here to us to play both ends against the middle. His very name reminds me of the atmosphere here tonight, Lash. But Sam Lash is a fine speaker, and I bespeak for him your most courteous and respectful attention while he tells some of those inimitable stories of his. Gentlemen, Mr. Samuel Lash. (Applause.)

Humor from Mr. Lash.

MR. SAMUEL LASH: Gentlemen, I don't think I need any introduction, or to tell any reason why I am here, after you have heard what Mr. Williams and Dr. White have said as to their reason for being here. Mine would only be worse. I was asked by Messrs. Healy, Merritt and White to tell a few stories. I demurred, but they told me I need not have any fear, that this was the Meat Packers' Association, and that cold storage stories would be all right. (Laughter.)

(Here Mr. Lash told a number of character stories.)

Testimonials to Committee Chairmen.

THE TOASTMASTER: Gentlemen, just one moment please. A very interesting matter is about to be undertaken by your Secretary. I would like to have your undivided attention for just a moment.

MR. McCARTHY: Gentlemen, you know it is customary at these dinners for us to give recognition to those who are to be credited with the pleasures that we have enjoyed. Without any reflection upon the preceding affairs, I think I am perfectly safe in saying that the American Meat Packers' Association has never given one which has been more pleasurable than this one. (Applause.)

Think back, just a little bit, of the details that are necessary, the weeks and months of work which have gone into this evening. I am quite sure it has been a great pleasure to the Banquet Committee to see that you have enjoyed this, but the greatest credit for the evening, with all of its novel features, with all of the little minor details which lend to the enchantment of the scene, are due to the Chairman of the Banquet Committee. (Applause.) And just to show that the packers have souls, hearts and appreciation, we want the chairman of this dinner committee to have a little souvenir of it that he may look upon it in future years as a thing of pleasure. And it is on your behalf that I present to Mr. Laurence Armour a little stick pin that he may remember this night with the pleasure that he has afforded us. (Applause.)

MR. LAURENCE ARMOUR: Ladies and gentlemen, I was in hopes we would have enough speakers here to occupy the time so that I would not have to go through this.

but I wish to take this opportunity of thanking all of those that have helped out to make this a success—at least that is what they say it is—and Mr. McCarthy says that I am responsible; but it is never half so difficult or rather hard to do it if you have got those to do the work. And although I did try to get something a little different than we have ever had before, I want to thank the members of the committee who really did the actual work of getting everything together this evening. (Applause.)

MR. MCCARTHY: May I intrude again I am going to take a chance on this one. We have got a receipt for Mr. Armour's entertainment, but we have another one yet to come, tomorrow night. We have the Chairman of the General Entertainment Committee, who is going to do something for us, I don't know what, and we have got to take him on credit. But from his past reputation, from his ability and from the programme that he has outlined, I think we are pretty safe in giving him one of those pins, too. And I am going to present it to Mr. Walter H. Miller, the Chairman of the General Entertainment Committee, also as a souvenir of this convention. (Applause.)

MR. MILLER: I want to thank you for this. I feel like a great counterfeit. I don't know any more about what is going to happen tomorrow night than the rest of you. Come and hear Arthur White, he will show you a good time. (Applause.)

THE TOASTMASTER: Now, without any further profuse introduction, because the gentleman whom I am going to call on needs no introduction to this assembly, I am going to ask the President of the Third International Congress of Refrigeration, Monsieur Lebon, of Paris, to just say a word. (Applause.)

ADDRESS OF M. LEBON.

MR. LEBON: Ladies and gentlemen: I really don't know what is to become of me since those days I have been spending in America. Ten days ago when I entered the country a friend of mine introduced me as a refrigerating engineer, and this evening I am appearing to myself in the dress of an old English country gentleman of the last century, so I have lost all my personality and I really don't know what of myself I will bring back to my country when I go in a week more.

The one thing I know is that I have had an awfully good time this evening, seeing such intelligent people as you are amusing yourselves as you did. And let me say, it reminds me very much an my own country people. We are supposed, we French people, to be always very gay. Well, of course we are as much as we can, but let me say, and Dr. White has seen it when he comes over to France, that we do also very hard work and very zealous work in the usual course of life. We think it is no use to go into life with a sad feature. We think you must always make the best of the circumstances which you get into, and I think there is much of the French character in the American one.

Now, I should like to be able to speak my own national language to answer something to the most eloquent speech of Dr. White, but I am afraid French is not known of many of you, and it is so late to make a speech. The only thing I should like to say is this, that we complain in France of too much individuals, and you seem to begin to complain in America of too much concentration.

And I believe you are right to complain a little of that, because the great danger of such concentration is to get Parliaments and Congresses to interfere in private business, which is very awkward for business itself, and very awkward for the case of liberty. You American people have been since a century and a half a people of liberty, of political liberty and economic liberty, and an example for we people of the ancient countries. And that is the reason why some years ago a magnificent statue of liberty was

erected at the entrance of New York port.

I hope you gentlemen will be moderate, you will not unnecessarily concentrate the wealth, so that Congress won't interfere with the organization of business and the liberty of the citizen. It would be a great deception

for us if in the future America should not remain the land of liberty as it has been in past times. (Applause.)

(The orchestra played the "Marseillaise," and the assemblage stood in honor of its French guest, after which it dispersed.)

The Cabaret Smoker

The chief feature of the convention entertainment programme next to the English Hunt Dinner was the annual smoker, which this year took the form of a strictly up-to-date cabaret entertainment, with some special features added. It was held on the roof garden of the Hotel La Salle, which had its memories of previous affairs for old members.

The great roof garden hall was packed. As the guests entered they had to run the gauntlet of the members of the Entertainment

disputes as to the record time for such a feat, etc. Up went the curtain, and to the accompaniment of appropriate tango music out pranced a white-gowned butcher, armed with hammer and skinning knife, leading by a rope the funniest papier mache steer you ever saw. Who acted the front legs and who the rear was never discovered, but they were excellent actors.

After some screamingly funny gyrations the poor brute was duly knocked in the head, and the butcher was about to dispatch it when a fake Humane Society officer rushed up and forbade the brutal spectacle in public. He did consent, after much uproar, to having the carcass cut up behind the curtains, which was done to the tune of much groaning and roaring.

Passing Around the Remains.

The curtains again parted, and the famous "Borax Bill" (known in private life as H. L. Harris of New York) appeared to distribute the parts to the appropriate personages in the audience. He did so in verse which cleverly carried out the idea.

It was whispered that Charles D. Jack was the poet who perpetrated the following, which was read amid great merriment, as the portions of the deceased steer were distributed:

To Charles Richter:

Charlie Richter, German Prince,
We're not handing you a quince,
Just the tenderloin.
It's not symbolic of your domain,
It stands for class, that's very plain,
This tenderloin.

To W. J. Mullally:

J. Mullally draws only a slice of the round,
And gets out a hammer to give it a pound.
Knocking roundsteak is under the ban,
So cook it and eat it without if you can.
If you can't, you can can it in an American can,
And ship it to Greenland or some foreign land.

To Richard Hebb:

Richard Hebb he draws the flank,
'Cause he can cook it on a plank,
Or serve it "Carter Harrison."
In "Daily News" Hebb he explains
How cheaper cuts prepared with pains
Make sirloin suffer by comparison.

To Oscar Mayer:

Oscar Mayer's big heart is full, as you know,
Of kind words and deeds that oft overflow.
That none may be lost, and to add to the store,
We give him another heart, to make room for more.

To Charles Rohe:

Charlie Rohe, here's the tongue,
That added to your power of lung,
Will make you master of the art of public speaking.
Like all big men of modern times,
Asked to speak, you forget your lines,
Now words will come without your seeking.

To James S. Agar:

Agar gets the beef extract.
For James Saintly Agar there is this jar of soup.
But a man of his calibre cares not a whoop;
Like all good things that you can recall,
His worth is great, his size quite small.

To G. W. Williams:

"Salty" Williams gets the tripe.
It's ready for pickle, and Salt is the man
Who can fix it up right if anyone can.
His friends are as thick as the holes in this stuff.
When they ask Salt a favor, he's there, that's no bluff.



WALTER H. MILLER
(Miller & Hart, Chicago)
Chairman Entertainment Committee.

ment Committee, who handed them souvenirs in the shape of bundles of choice cigars, cocktails in individual flasks, etc. Seated about the tables, the guests enjoyed a concert programme from the orchestra preceding the cabaret bill. The latter included the leading vaudeville entertainers of the Chicago stage, and some very clever dancing and singing, character sketches, etc., were included. A surprise was the appearance on the bill of a tiny tot named "Lady Newkirk," who is not a professional, but who gave some inimitable imitations of stage singers and dancers she had seen.

The concluding feature was a "scream." Billed as a "championship beef dressing contest," the members expected to see a steer cut up on the stage, and there were many

To Harry Oppenheimer:

Here's a gut from the old timer
That we've saved for Oppenheimer,
Genial casing merchant Harry,
Known to each and every member as the best of all
good fellows,
As a leader in the business.

All went well with smiling Harry,
Had all the money he could carry,
'Til a lady crossed his pathway,
Known to all of us as "Gertie,"
Said his casings all were dirty.

This sad tale in large black print
Took the roof off Harry's mind.
If you ask him he will tell you—
Tell you all about the lady.

To Charles E. Roth:

Charlie Roth, here is a horn,
That won't affect your head next morn—
One of plenty, pouring wealth,
Of shekels, happiness and health.
Since most good farmers raise Polled breeds
Horns like these aren't thick as weeds.

To E. S. La Bart:

We give a hoof to Ed La Bart
'Cause he's familiar with that part—how kind!
When he hoofed it in from near Oak Park,
He reached the stockyards after dark—he's moved,
we find.
As Pressman for A. M. P. A.,
He's got the hoof most every day—behind!

To George L. McCarthy:

George McCarthy take this switch,
Give your galluses a hitch,
And keep your eyes upon the weather.
When you see another ditch
Key your voice to highest pitch
And yell, "Now, boys, all pull together!"

To D. V. Colbert:

Dave Colbert's tall comes last, of course,
As tails most surely should.
If he will make it into soup, he will find it very good.
And if he adds such vegetables as quickly come to
hand.
He'll find the visible supply quite equals the demand.

Following the distribution the moving picture film showing last year's convention party taking an auto tour of Chicago was exhibited, and much interest was derived from picking out the various notables in the pictures. Then followed a new film, never before shown anywhere, which was of a comedy character and was highly enjoyed.

The Entertainment Committee, which deserved the greatest credit for its splendid work throughout the convention, was as follows:

Walter H. Miller, Chairman; A. M. Adler, Adler & Oberdorf; W. B. Allbright, Allbright-Nell Company; E. D. Baldwin, Libby, McNeil & Libby; A. N. Benn, Omaha Packing Company; Henry W. Bernson, Thos. Barlum & Sons; Barney J. Brennan, Brennan Packing Company; Patrick Brennan, Independent Packing Company; F. R. Burrows, G. H. Hammond Company; C. L. Charles, Morris & Company; D. V. Colbert, Miller & Hart; C. L. Coleman, S. Oppenheimer & Co.; A. E. Cross, Cross, Roy & Saunders; John A. Dahmke, John J. A. Dahmke Packing Company; A. A. Davidson, The Davidson Commission Company; W. B. Davies, The Davies Supply Company; F. M. DeBeers, American Foundry & Machine Company; O. J. Dorn, Automatic Sprinkler Company; J. A. Dugan, W. G. Press & Co.; W. H. Fairchild, The Sefton Manufacturing Company; A. B. Friedman, Friedman Manufacturing Company; F. T. Fuller, Wilson Provision Company; John W. Hall, Sterne & Son Company; F. A. Hart, F. A. Hart & Co.; J. A. Hawkinson, Sulzberger & Sons Company; John Hetzel; Fred K. Higbie; Robert H. Hunter; R. C. Johnson, Cudahy Packing Company; E. B. Merritt, Armour & Company; W. J. Mullaley, American Can Company; C. A. Murphy; Jonas L. Pfaelzer, Pfaelzer & Sons; E. C. Price, Fred K. Higbie Company; Joseph

E. Schoen; R. L. Scoles, Schwarz & Co.; C. J. Short, Standard Slaughtering Company; Chas. A. Sterne, Sterne & Sons Company; S. Strauss, Independent Butchers' Supply Company; Chas. F. Unrath, Fulton Packing Company; A. D. White, Swift & Company; G. W. Williams; Chris Wolf, Wolf, Sayer & Heller; G. W. Zeiger, G. W. Zieger Company; J. B. Zeigler, M. K. Parker & Co.

Convention Pilgrims

One of the pleasures of the convention trip to many members is the making up of special parties from cities or localities to travel together to the meeting. The famous "Cincinnati Bunch" has always been a feature of packers' conventions, coming from 25 to 150 strong each year, in everything from a special car to an entire special train. Other cities have done likewise, and the members have had a lot of fun out of the trips.

Pittsburgh Comes in Force.

This year was no exception. There were numerous special parties of this character, perhaps the most conspicuous of which was the Pittsburgh delegation under the direction of Conrad Yeager. This party numbered 28 men and 5 ladies, and they had a convention of their own before they ever got to Chicago. They will never forget "Con" Yeager, or get over thanking him for the good time they had.

The Pittsburgh party left that city Sunday morning and made their first stop at Columbus, O., where they were received by the officers of the Columbus Packing Company, Herman Falter, Joseph Deibel and others, and taken for an automobile tour of the city and for a visit to the plant of the company, which is one of the most modern in the country. Later they were entertained as guests at a chicken and roast beef dinner which was a banquet in itself, and which they declared to be the finest of its kind they had ever tasted. Their genial hosts also entertained them with music and speeches. Herman Falter was toastmaster, Joe Deibel and Albert Denton sang, and Alois Thurn recited. Of the visitors C. H. Ogden, John Seiler, J. T. Taylor, and Conrad Yeager made speeches also. The festivities continued until time to take the night train for Chicago.

It was a great trip, and the Pittsburghers will not soon forget it, nor will they forget the kindness of their guide, Mr. Yeager, and their Columbus hosts. The party included the following:

Conrad Yeager, Pittsburgh Butchers' & Packers' Supply Company, and wife; C. J. Walsh, Dumbley Brothers Company, and wife; E. A. Reineman, of Freid & Reineman, and wife; W. S. Crozier and wife, Mr. Briggs and wife, J. T. Taylor, George Kalbitzer, John Miller, John O. Schenck, Charles Peters, J. M. Denholm, C. A. Young, Peter Klein, R. C. Crawford, Mr. McMillan, J. H. McCutcheon, C. H. Ogden, Joseph Deibel, Herman Falter, John Konle, Mr. Schmidt, John Seiler, C. A. Schell, G. Zimmerly, William Weiner, Henry Weiner, Al. F. Scheuring and John Wenzel.

The Merry Cincinnati Bunch.

The Cincinnati party left that city in a special Pullman on Sunday evening, under the guidance of Charles E. Roth, of the John C. Roth Packing Company, and reached Chicago Monday morning. There was the usual jolly Cincinnati bunch, and with both Charley and Joe Roth, George Zehler, Billy Hopkins and the other stand-bys to help along the fun the trip was a merry one. Among those in the party were: Charles E. Roth, Joseph L. Roth, Carl Hauck, George Kauffman, John Hoffman, George Zehler, Fred Hoffman, Henry Gates, Roy Robson, John J. Dupps, Gus Schmidt, George Greishaber, William A. Hopkins, Frank Heckel, Andy Moder, George Knopp, Paul Feiker, Mike Crow, Frank Folz, Emil Glazer, Frank Meyers, John Hope, Jake Andrae, Nick Jansen, Anton Stolle, C. M. Robinson, Jr., George Blouvelt, William Kuhnelt, Charles J. Meekin, Oscar Zeuch, Edwin Zeuch, Mike Ibold, Albert Schwill, Myer Newhoff, Charles Hess, George Kuhn, Max Jewett and Ben Hellman.

The St. Louis delegation came through on

Sunday night, headed by President Gustav Bischoff, Sr., and including Gustav Bischoff, Jr., J. C. Waldeck, Charles G. Deibel, Jr., John H. Schofield, A. W. Gaddum, R. S. Redfield, L. V. Kramer and others.

The Baltimore party came in early, including J. Fred Shafer, Howard R. Smith, William H. Schluderberg and others.

The New York party left that city on the Lake Shore Limited on Saturday evening, under the guidance of Charles and Albert T. Rohe, which was a guarantee of the usual good time on the trip. H. C. Zauu, the veteran broker, who was one of the "originals" on these tours, was also in the party, and Arthur Weisbecker was initiated into the mysteries, it being his first time aboard.

Buffalo, Philadelphia and other cities sent special parties, but a feature of the attendance was its representative character so far as widely-separated parts of the country were concerned. Individual delegates from such distant points as Knoxville, Tenn., and Spokane, Wash., from Porto Rico and from far Saskatchewan, gave the meeting a truly national character. The international phase was represented by visitors from Australia, New Zealand, Argentina, Russia, Germany and even China.

The Trade Exhibits

Those who do business with the packers were on hand as usual at these conventions. Both packers and supply men find this a convenient time for doing business together. The meat men get many new ideas from a survey of the exhibits and a study of facts presented by salesmen, and they all save time, money and traveling expenses.

Two floors of the Hotel Sherman were occupied by the headquarters of the associate members. Those who did not show machinery, supplies, etc., had a comfortable room in which to sit down and talk things over, and plenty of catalogues, printed matter and other facilities for promoting business. The rules requiring the closing of these rooms during convention sessions were faithfully observed. The rule prohibiting liquid refreshments in these rooms was also observed with a single exception—and that will not occur again!

Sam Stretch, who sells spices for the Arrow Mills, didn't need any headquarters except that under his polished dome of thought. He was kept very busy.

Conrad Yeager, head of the Pittsburgh Butchers & Packers Supply Company, was so busy acting as chaperon for the Pittsburgh delegation that he had little time to boost his own game. But "Con" will not lose by his unselfishness in this instance. The trade gives him credit for his good work. Besides, everybody knows his house anyway. "Wyandotte" butchers' and packers' cleaner and cleanser was well looked after at the convention by the representatives of the J. B. Ford Company of Wyandotte, Mich. At the smoker each guest was presented with a neat stick-pin representing the Indian-head trademark of the company.

The Allbright-Nell Company, manufacturers of packinghouse machinery of all kinds, had a reception room full of interesting literature. As a souvenir they gave a mirror with three dressed hogs hanging on the rail on the back, and on the face another —? Puzzle: "Find the hog." This was perpetrated by W. B. A., and made a hit. Receiving Committee was W. B. Allbright, B. F. Nell, B. F. Nell, Jr., Geo. H. Stallman, of "sausage stuffer" fame, and W. J. Richter.

The Cincinnati Butchers' Supply Company had their usual exhibition and reception rooms. The exhibits included a "Boss" hog casing cleaning machine, "Speck" cutter, cold storage roller door, switches, hangers, etc., all of the famous "Boss" brand. Representatives were John J. Dupps, vice-president; Gus Schmidt, second vice-president, and George Grieshaber, secretary. The genial President, Chas. G. Schmidt, was missed; it seemed strange not to have him greet you. But the "Boss" appliances spoke for themselves!

The Spencer Otis Company, western representatives of the American Kron Scale Company, had as an exhibit two American Kron scales, one of which was bought by Oscar Mayer of Chicago. The Kron company are manufacturers of all kinds of automatic springless scales. Their exhibit attracted much attention. T. W. Blatchford, general western sales manager, ably explained the merits of the Kron scale. Other representatives of the company were W. W. Camp, J. T. DeRemer and A. L. Hammond. The Kron scale is rapidly coming into use in the meat trade everywhere.

The Sefton Manufacturing Company, Chicago, exhibited all kinds and sizes of paper folding cartons, corrugated fibre board shipping cases for all meat products, in tin, glass or bulk. They also exhibited a line of handsome calendars made by the Gerlach-Barklow Company, which are mailed in Sefton corrugated mailing boards and tubes. Souvenirs distributed were a neat pencil and tape measure. Representatives were W. H. Fairchild and J. P. Brunt. This was an extremely interesting exhibit and attracted much attention.

Morris & Company, packers, had a large reception room in charge of Con Tobin. Telephone accommodation for visitors and other conveniences were afforded. The room was decorated with American flags. "Supreme"—that's the idea!

Sterne & Son Company ("just brokers") had a reception room, and were kept busy receiving visitors. Chas. A. Sterne, John W. Hall, D. P. Cosgrove, C. H. Sterne and C. H. Todd were on hand, and the motto was "Go as far as you like."

The General Vehicle Company, makers of motor trucks, had a reception room in charge of Edwin E. Witherby, T. W. Barnes, and W. J. McDowell. The room was decorated with American flags. Interesting literature for visiting truck users was on hand.

The Myles Salt Company, of Louisiana, was present in the familiar and impressive person of Col. B. B. Myles of New Orleans. Adam Perkins, the colonel's bodyguard, distributed a neat leather match safe. Samples of all kinds of salt were on exhibition.

B. Heller & Co. had a fine exhibit of meat curing compounds; seasonings, disinfectants, etc. Representatives were W. J. Speller ("Zanzibar Bob," the man who put the "bar" in "Zanzibar"), who is general eastern agent; Edward Heller, B. Heller and Arthur Beck.

The Worcester Salt Company, New York, had a reception room in charge of the following representatives: H. E. Schuknecht, Chicago manager; W. H. Miller, Jr., St. Louis; Lewis Koerner, New York; A. F. W. St. John, Columbus, O.; and J. J. Coyne, Chicago. They gave out as a souvenir a folding drinking cup and neat leather note book. This concern handles high grade salt for curing and all purposes.

Fred K. Higbee Company had as representatives E. C. Price, president; J. A. Greenlee, general manager; Geo. E. Elliott and A. G. Riche. The exhibit included white wood cooperage, all sizes, gambrel sticks, sheep sets, lard tubs and pails, delivery baskets, casings, woodenware, Manila and wax papers, Fuller's earth, veneer for packing cases, etc.

West Disinfecting Company, Chicago, had an exhibit of all kinds of disinfectants and sanitary appliances for toilets and lavatories, liquid soap and dispensers, paper towels, etc.—in all 51 different products and appliances. Their representatives were J. J. Benas and E. W. Dewey.

The Klimax Manufacturing Company has as an exhibit a motor-driven meat chopper, said to be fool-proof. Representatives were G. S. Ganzhorn, W. B. Nash and P. Ganzhorn.

The Self-Locking Carton Company exhibit was in charge of James T. Lambie, who showed self-locking egg cartons.

The Chicago Mill & Lumber Company had a reception room with W. Harry Davis, Don L. Quinn and A. R. Schuber as a reception committee. This concern manufactures packing boxes, etc.

Personal and Otherwise

"Zanzibar Bob"—that's all, and enough.

John Seiler was there, too! You bet he was.

There are many hotels, but only one Hotel Sherman!

What a team Charley Sterne and Jack Hall make! Oi! Oi!

And then there's the Secretary, who is a whole team by himself!

General Ryan, whom we all love and respect, was unable to attend.

P. J. Hamler, the tankman, walked right in and backed right out again.

Speaking of team-work, can you beat Arthur White and Ed. Merritt?

George Marples, the export expert, was one of the Cudahy representatives.

C. L. Coleman, S. Oppenheimer's star, took it all in quietly but effectually.

J. T. Taylor represented the brokerage concern of J. T. Taylor Company, Pittsburgh.

H. Hoenigsberger was there, representing the Western Sausage & Provision Company. Walter W. Berry strolled in from Melbourne, Australia, and was an interested observer.

The General Vehicle Company was ably represented by F. T. Guendel and T. W. Barnes.

P. A. Jacobsen, of the Interstate Packing Company, Winona, Minn., was an interested visitor.

Patrick J. Brennan, of the Independent Packing Company, was one of the live wires present.

"E-yip-i-addy!" properly served doesn't savor much of deep sorrow over the beef shortage.

Oscar Mayer, Jr., is a regular attendee, and will be one of our leading packers one of these fine days.

A. W. Mayo and George H. Chase represented J. R. Poole, of Boston, more than creditably.

R. W. Moody, of Bernson & Moody, an old-time Cudahy man, attended and met his old friends.

E. S. LaBart, publicity-general-at-large to the works, did his little job up to the handle, as per usual.

E. C. Merritt represented ably The Indianapolis Abattoir Company. We missed Mr. Allerdice.

Matt Parker and Joe Ziegler, known from coast to coast as M. & J., dropped in and visited awhile.

C. J. Short, of the Standard Rendering Co., lent weight and class to the meeting, if anyone should ask.

Sefton Manufacturing Company was represented by W. M. Sawyer, W. H. Fairchild and J. J. Brunt.

Charley Martin, of the Globe Rendering Company, and one of the wise old grease guys, was on the job.

George Zehler, one of Cincinnati's star players, blew in with the aggregation and stayed the limit.

Lord Roberts (liable to be any day) was making the best of every possibility and everything goes with him.

The Heekin Can Company, of Cincinnati, was represented by H. L. Gates and R. P. Robson. Great pair.

A. W. Gaddum, of the Brecht Company, was one of the every-year-all-the-time attendants. Same quiet smile.

Eddie Egan, one of the best cattle buyers in the yards, mingled with his old-time friends from all over the country.

The packing industry of Columbus, Ohio, was represented by James N. Dailey, Herman Falter and Frank Schmidt.

"Doc" Fulkerson of Washington, D. C., was not there. We all missed you, Doc, and said a little prayer for you.

"Chris" Wolf, one of the liveliest of the live conventioners, certainly made good. Nothing dead about "Chris."

W. J. Mullaley, of the American Can Company, did all possible to make things pleasant, and is a success at the job.

J. C. C. Waldeck, of St. Louis, came in with the St. Louis delegation as usual. Couldn't dispense with genial J. C. C.

A. B. Gest, of the Urbana Packing Company, attended as usual and took all the proceedings in, and the fun also.

F. E. Luley, of the Luley Abattoir Company, St. Paul, Minn., may always be depended upon to swell the ranks.

L. A. Kramer, of the Brecht Company, who is in the 2:01 class, was on the job with his 1914 ideas in A1 working order.

James G. Craig and Robert Shiell represented Parker, Webb & Co., of Detroit, Mich., and both know how, to a turn!

Brennan Packing Company was represented by C. E. B. Brennan, F. J. Brennan and E. Herrick, all finished representatives.

It takes Arthur White to stage a smoker show. As an impresario he is always "Premium A." By the way—ever heard of "Premium A"?



EDWARD LA BART
(Morris & Company, Chicago)
Chairman Press Committee.

Joe Schoen, the packinghouse chemist, was one of the banquet committee.

G. L. Jonas, of Bechstein & Co., met them all in his usual genial manner.

G. Russell Ryan, of Ryan Bros., Winnipeg, Canada, was a lively husky.

John Chatillon & Sons, the scale people, were represented by R. F. Bonton.

Albert H. Focke represented William Focke & Sons Company, Dayton, Ohio.

The United Cork Companies was represented by E. J. Ward and C. A. Tatum.

As Toastmaster Williams hinted, there is a wide difference between craftsmen and graftsmen.

Jim Turner, the Boston beef man, with Jim Poole, took the liberty of making his bow.

Henry Eckert, of Fort Wayne, Indiana, blew in just to say Fort Wayne is some town, and the Eckert plant some plant.

For a mere preacher, the Reverend Doctor White is some banquet orator. The packers marked him "U. S. Inspd. & Psd."

Charley Roth, the irrepressible, is always heartily received in every company, no matter who they be or where they are.

Charley Herendeen, of sausage flour and blooded stock fame, could nearly be seen most anywhere—if you looked real close.

"Oh, you great, big beautiful doll," rendered (not for lard) by a bunch of dignified ducks, is, to say the least, alarming.

Veteran Jacob Decker almost smoked a cigarette at the banquet. But he thought just in time of what the boys would say.

Oscar Mayer—need to say any more? You all know him. Worth coming all the way from most anywhere to see, ain't he?

"Tankage" Tomkins can run a pile of tankage to earth surer than any hunter in the business. His scent is infallible.

W. J. Kelly, the rolling—no, the molasses—man from St. Louis, Mo., came and stuck it through. "Everybody there saw Kelly."

The National Ammonia Company was ably represented by the Hon. J. C. Atwood, H. S. Robbins, Ewing Hymers and A. E. Howe.

Jim Duggan, now manager for the W. G. Press Company, U. S. yards, was there, of course, meeting his old friends in the trade.

Judge Harry Boore, the physical and otherwise wonder of the packing business, took in the whole show in his own peculiar way.

A. F. St. John and Lewis Kroemer did the honors for the Worcester Salt Company, and gave a very neat note book as a souvenir.

D. V. Colbert (now, these here pages would look like sin if Dave wasn't in the swim) was there—THERE! That's all, and 'nuff.

P. G. Gray Company, of Boston, was ably represented by L. E. Griffin and H. S. Davy, enthusiastic conventioners and popular, too.

G. G. Oetting, of the Armstrong Cork Company, always sees the good side of everything and is a booster of the highest order.

There were evidently a few young men at the banquet to whom such an occasion was a new experience. At least, it sounded that way.

W. B. Cassell, the well-known and popular Baltimore broker, never missed making it yet, and the most of it, too. Righto', Barry.

A. E. Cross, of Roy Cross & Saunders, one of our crack Board of Trade men, laid down his pencil long enough to amalgamate a few.

O. J. Danziesen, of Decatur, Ill., attended. Mr. Danziesen, Sr., was the very first to appear at the first meeting of the Association.

Fred T. Fuller, of Peoria, Ill., dropped in just for a little change—of atmosphere. That Peoria altitude is trying on a Chicago product.

Geo. Tachappat, the grease broker of many moons, paid his respects to the Association. George thinks that's enough to pay, anyhow.

Barney Brennan, now a benedict and a nice home-sweet-home gent, too, broke away long enough to say "Hello!" Still waters run deep.

F. B. McClure, of the Hartford City Paper Company, exhibited some fine samples of his company's goods, which are deservedly popular.

Henry Sartorius, of St. Louis, one of the "heavies" of the Association, and a progressive packer, came in with the St. Louis Crowd.

F. R. Burroughs, an entertainer of unquestionable ability and versatility and stability and agility and other qualities, was also present.

G. L. Chatfield represented the Mechanical Manufacturing Company, one of the leading packing house machinery houses in the country.

Peter Cosgrove, of Sterne & Son Company, of the Herendeen-Harvey Shepherd type of dynamo, took it all in. Crack "feather," Pete is.

William R. Perrin, one of the oldest packinghouse and abattoir experts in the business, attended with his manager, the genial Charley Johnson.

National President John T. Russell, of the United Master Butchers, is getting to be a fixture at packers' conventions. Long may he wave!

"Bob" Hunter, the fire insurance expert, and one of the real men of the business, helped all he could. Here's a real prince of the blood.

J. J. Martin, of D. B. Martin Co., Philadelphia, one of the big men of the association, attended and added his quota to the general good feeling.

The Independent Butchers' Supply Company was represented by S. Degginger, S. Strauss and J. Stifter, all crack butchers' supply men.

"Borax Bill"—otherwise, H. L. Harris, of New York—was there, and it is confidently expected borax will take the place of beef, in consequence.

The Chicago newspapers actually discovered that there was a packers' convention in session! Who says Ed. La Bart ain't some press agent?

F. J. Bergeron, the Toledo architect and builder of packinghouses, who enjoys the entire confidence of his clientele, was a welcome visitor.

That "We're here because we're here" is a touching thing when rendered off'n the top of two highball Scots and two mugs of Hold Hinglish hale.

Jonas F. Pfaelzer, of Louis Pfaelzer & Sons, attended and was an intent listener at the meetings. Chip of the old block, with 1913 additions.

G. Bischoff, Jr., of St. Louis, attended and enjoyed the proceedings throughout thoroughly. A chip off the old block—with a few splinters added.

John Hetzel—there is but one John Hetzel—more's the pity. A whole colony of him would be worth traveling around the world to see and meet.

John Theurer, of Cleveland, son of the renowned John Theurer of Chicago Stock Yards fame, was there and busy as usual, energetically so.

David Drummond, of Eau Claire, Wis., is some packer, but does not make any hullabaloo about it. He's well known, however, and highly respected.

M. R. Murphy, Omaha, one of Cudahy's field generals, attended and enjoyed the whole session immensely. "Murph" is on immense lines, every way.

Henry Wagner, of the Wagner Refining Company, Cincinnati, Ohio, the packinghouse expert on construction and sanitation, was present and busy.

Wm. A. Willhide, Goshen, Ind., of hydraulic press fame, "saw" all his old friends and many new ones through—and Willhide knows how to do it.

Walter R. Kirk was an enthusiastic and active member of the banquet committee. Visitors were welcome to make all the use they wanted of his offices.

C. H. Ogden, the well-known Pittsburg packer and an enthusiastic member, always takes a lively interest in every meeting and is deservedly popular.

Charley Cone—coal baron, golf fiend, expackinghouse purchasing agent and probably guilty of other crimes—represented ably the Bickett Coal Company.

H. C. Zaun, one of the oldest and best-known brokers in New York and elsewhere, came with the herd, and naturally, from experience, just let 'em rip.

Col. B. B. Myles, the New Orleans salt baron, and a real baron by nature—everything about the Colonel is baronial—attended and enjoyed himself immensely.

Walter C. Miller, chairman of the Entertainment Committee, certainly deserved all the praise possible to bestow upon him. He got it, and it pleased him, too.

John J. Dupps, of the "Boss" ranch, was on the job in all his glory and—well, Dupps can be as glorious as the most gloriousest son-of-a-gun on the dump.

S. E. McPartlin, of the Union Fibre Company, was on the fire, taking in everything that came his way, and he's some intake, too, 'specially in the order line.

Charley Kamrath, representing E. H. Stanton & Co., Spokane, Wash., attended. Charles says they have a fine packinghouse in Spokane, and he oughter know.

Chas. A. Sterne, broker and globe trotter, was on the job as usual, full of business and trying to look as little like a grandfather as possible—and effectually, too.

Joseph Conron, president of the Conron Brothers Company, New York, was on deck early and late, and then some. Busy as a hen scratching on a tin roof.

Ed. B. Merritt, Armour & Co.'s advertising manager, needs no introduction. He goes through a job like Motorcycle Mike, and no one knows it until it's all over.

This year's meeting had a truly cosmopolitan air, with representatives from Australia, New Zealand, Argentina, Porto Rico, Mexico, Canada, Germany, France, etc.

Ridgway—that's his name, the man that "Hooks 'er to the Biler." Everyone knows him, and why not? His acquaintance is profitable. But he didn't come.

Speaking of that fake report about the \$250-a-plate banquet, what would the newspapers or the political agitators do without the packers as a butt for their attacks?

Mike Murphy, Cudahy's Omaha generalissimo, wanted—the worst way in the world—that green ribbon Judd Williams had on for a tie, to counteract the red coat.

Al Worm, of Indianapolis, was busily engaged doing the convention from A to Z, and incidentally posting Indianapolis on the canvas, assisted by C. H. H. Fisher.

John G. Hormel and Al Eberhardt, of Austin, Minn., are purty nearly as famous and popular as their captain—in some respects famouser. Ask Jack Hall.

Jacob E. Decker and R. W. E. Decker, of Mason City, Iowa, have made their section of Iowa famous in the packing world. They put Mason City on the map, too.

Fred Betz represented Zehner Brothers Packing Company, of Toledo, Ohio, and made an awful racket—NOT. But you bet Betz knows what's what, just the same.

James S. Agar got his packinghouse to running each day in time to be promptly on hand for convention sessions. "The Little Giant" is one of the indispensables.

"Call me up some rainy afternoon" reminds us of the story of the actress who remarked: "There are but two things one can do rainy afternoons, and—I don't play cards."

Sam Stretch always injects the spice into the meeting. Everybody knows Sam, and even the sausage chopper smiles in unison when Samuel blows into the factory.

"Con" Yeager, one of Pittsburgh's brightest bright lights—and that's no incandescent either—stirred things up for fair, and all the best came to the top. Hail, Conrad!

Arthur Adler, Sig. Adler and Glenn Evans, of Adler & Obendorf, one of our leading hide, tallow and grease concerns, circulated freely, meeting old friends and making new.

D. I. Davis read an interesting paper on Concrete Construction. The miracle is how in hades D. I. can keep in one place long enough to read a paper, he's so doggone swift.

Henry W. Bernson, of Bernson & Moody, the now well-established and popular general purchasing agents to the trade, did his share towards making the meeting enjoyable.

John M. Danahy, of Buffalo, scion of a grand old family, was present and was cordially greeted by all who had the pleasure of his acquaintance, and many new ones.

F. M. deBeers, of the Swenson Evaporator Company, who believes in the successful evaporation of everything worth evaporating, makes his argument "stick" every time.

H. H. Brunt, the soap stock expert and broker, always takes this extra opportunity of meeting his old-time Eastern friends, with whom he was associated for many years.

R. T. Keefe, of Henneberry & Co., Arkansas City, Kan., attended. Just recovering from an operation for appendicitis, consequently not quite the husky Dick of yore.

Joe Roth, Cincinnati's live wire, always shoots the temperature up several degrees. This cold, chilly business does not appeal to Joe, except as a refrigerating proposition.

Harry Oppenheimer gives all his boys every opportunity to see the big show, and to give their friends a good time, which costs Harry a couple of bones or so—in fact, quite a few.

W. B. Allbright, of the Allbright-Nell Company, is always the center of a practical bunch discussing actualities and possibilities, especially on the grease end of the business.

C. L. Brooks, of the Albert Lea Packing Company, Albert Lea, Minn., attended as usual and was warmly greeted. Larry is amongst the "U. S. Inspected and Passed."

Horace C. Gardner, the refrigeration expert, attended. Mr. Gardner was one of the active men in the Refrigeration Congress, but found time to visit his old friends, the packers.

A. G. Glick, of Brittain & Co., Marshalltown, Ia., was certainly a welcome visitor, as also was John Bell. It was good to see Glick again, after his vacation. We need his sort.

Frank J. Sullivan, president of the Sullivan Packing Company, Detroit, Mich., attended, accompanied by his "white hope," Wm. Flannigan, superintendent. Good pair to draw to.

King Charles and Prince Albert, of the House of Rohe (American Royalty), as ever helped along the good fellowship feeling as they only in their own inimitable way know how.

Harvey Shepherd, representing Thos. Gouldard & Co., for a couple of hundred years or so, breezed in behind that trade-famous moustache of his, looking as youthful as ever.

Fred Krey, of St. Louis, is a staunch conventioner and one of the best and most welcome mixers that ever came down the pike. Notice they elected him vice-president, didn't you?

James S. Agar, packer, financier, politician, soldier, orator, policeman, etc., etc., was—certainly he was. Had it been several years ago, Anna Gould would have pinched him, sure!

L. G. Corkran represented the famous house of Corkran, Hill & Co., of Baltimore. B. W. Corkran was too busy making money, and B. W., Jr., too busy winning golf championships.

Milton J. Williams, of Williams Patent Crusher & Pulverizer Company, attended and did his part as only M. J. knows how. The Williams bunch need no tutelage—Antonio, avault!

E. F. Rath, of Waterloo, Iowa, represented the celebrated Rath family of packers at the convention. The Raths of Iowa are like the Roths of Cincinnati—they never miss a meeting.

M. E. Taber, of Buffalo, N. Y. (when you think of a pump you think of Taber, and vice versa) always makes it his business to attend the best meeting of the best people in business.

Bechstein & Co. had Samuel Dalton and J. A. Maclean as representatives, and they did the honors for their concern in the patented Dalton style. They are regular attractions.

J. J. Felin, of Philadelphia, one of the staunchest members of the Association, carries his personality into everything he undertakes, and that means a personality that accomplishes.

Henry Marx, of S. Oppenheimer & Co., is now making Oppenheimer famous in Milwaukee. Who does not know Henry? Henry the Great! And Max J. Salzman was on the job, too.

Chas. A. Murphy, the pharmaceutical raw material dealer, and member of the Entertainment Committee, attended and talked glands and things. Murphy buys all this class of stuff.

Fred A. Hart, the well-known casing dealer, lent no small aid toward making the meeting enjoyable. Gets the business without any loud noise. And dinna fergit there's a Fred P. Hart, too!

R. Mannheim, charter member and director, has never missed a convention, and was on the job with the same old smile, one eye on business and the other taking in everything going on.

Morris Schwabacher of the North American Provision Company, one of our most popular old time packers, took in the meeting and enjoyed the pleasure of meeting many old friends.

Arthur D. White, Swift & Company's ad-

vertising manager, was there from start to finish, and he can start and finish with the best of them. We need A. D.—and he always makes good.

Asa Davidson, the legerdemain artist, was in evidence everywhere all the time. "Ace" does not believe in hiding his light under a bushel—of anything. Take a ship load to put his glim out.

G. W. Williams—familiarily known as "Salt"—and as chemically pure as the product he sells, did the thing up to the Queen's taste. Doing anything right is "Salt's" long suit.

Charles Kerber, of the Kerber Packing Company, Elgin, Ill., one of the original "founders," was on hand early, but Brother Will was missing. P. S.—William "showed up" on Tuesday.

There were a lot of people outside the trade immediately anxious to help the packers spend that \$500,000 for educating the farmers to

Co., Cleveland, one of the live executive committee members of the Association, attended and helped to make the meeting worth while. He was everywhere, and on time.

W. F. Brunner, the Paterson Parchment Paper Company man, and A. T. Pratt, his able aide, were strictly in the running. Landed Friday, first on the job. Dr. Hans Wrede, the company's chemist, also attended.

John Moran, the oldest active practical packing man in captivity, and honorary member of the Association, met many old friends from all over the country. English meats is John's long suit and fashionable now.

Board of Trade members well known in the provision pit who were visitors at the meeting were: Frank and Charles Clifton, Sam Wolf, Tommy Gregg, William L. Gregson, James A. White and John A. Bunnell.

Laurence H. Armour, chairman of the Banquet Committee, certainly made a ten-strike with the English Hunt Dinner, a dinner which will be a pleasant remembrance in the minds of the guests for many years to come.

Among the Canadian representatives were: J. A. Gunn, of Toronto; Russell Ryan, of Ryan Brothers, Winnipeg, Manitoba; L. B. Edmonson, of Moose Jaw, Saskatchewan, and E. Hinds, of Fowler's Company, Windsor, Ont.

William F. Schluderberg, of William Schluderberg & Son, Baltimore packers, took in his first convention. He is one of the younger element which makes the future of the industry look so bright because of their progressive spirit.

John L. Van Neste, of the H. T. Pond Company, New York poultry receivers, was attending the poultrymen's convention, but he couldn't keep away from the packers' crowd. He used to be one of the bunch and it seemed natural to mix.

Richard H. Wyman, who looks like a Federal judge or a United States Senator of the old type, again reported the convention proceedings for the Association. A convention would seem strange without Mr. Wyman at the official reporter's desk.

Theo. O. Vilter, of refrigerating fame, Milwaukee, was in attendance, trying to get his English disentangled from the Russian, French, German, Japanese, Chinese, Norwegian, etc., he has been mixing up with at the Refrigeration Congress.

Colonel John H. Schofield, of St. Louis, national secretary of the United Master Butchers, always brings Mrs. Schofield to these conventions, and they both enjoy them. Master John Forrest Schofield will soon be old enough to take it all in, too.

"What the hell do we care" is another affecting thing, and more than appropriate when you are de-vouring grub sneaked upon the table under an alias. Really, a person attending most banquets should tie care in the cellar at home on leaving, anyhow.

George L. McCarthy has gained a whole quarter of a grain since the last meeting! We expect sometime to weigh him by the pennyweight. He was there at the wheel as usual, and he's some steerer, too. (He'd "can" me if he knew I'd run this in on him.)

The Kron Scale people killed two birds with one stone when they showed their scales to the packers and the poultrymen at one and the same time and place. These scales have a strong appeal because of their readiness and accuracy in all uses to which they are put.

J. Fred Shafer, of Baltimore, one of the famous bunch responsible for the success of the Washington convention of two years ago, came in early on Sunday in company with Howard R. Smith, of the Jones & Lamb Company. They did not want to miss a thing.

Nobody had a better time at the banquet than Monsieur Lebon, of Paris, President-General of the World's Refrigeration Congress. He says we are like the French when it comes to enjoying ourselves—we know how to do it. The packers bunch surely know how!

John W. Hall, the crack lard and compound man, now of Sterne & Son Company, read a very interesting and instructive paper on the hydrogenation of fats—a matter in its infancy as yet. By the way, Jack knows, and is always willing to impart his knowledge. Ask him.



RALPH W. E. DECKER
(Jacob E. Decker & Sons, Mason City, Iowa)
Member Executive Committee.

raise beef. They couldn't even wait till the \$500,000 was raised!

Gustav Bischoff, Sr., of St. Louis, president of the Association, received an ovation on rising to open the meeting, which he evidently greatly appreciated. His paper was extremely interesting.

W. B. Allbright, of the Allbright-Nell Company, was as busy as usual giving the packers the latest ideas in lard refining. Mr. Allbright has forgotten more about oils and fats than a lot of people ever knew.

W. B. Davies (he never appreciates this, at all) was there, always is, and takes it all in, from Alley to Omaha. Willum's middle name is "Persistence," but he does not care for advertising goofs named after him.

N. O. Newcomb, of the Lake Erie Provision

The "long and short of it" were conspicuous in the convention lobby on the opening day. H. Fred Vissman, the Louisville packer, represented the "long" end, while Sam Stretch, the spice specialist, took care of the "short" part. When they conversed they used megaphones.

Among the very-much-missed old-timers may be mentioned: George A. Adlam, Joseph Allerdice, General Michael Ryan, Samuel Allerton, Charles G. Schmidt, George A. Hornell, B. W. Corkran, E. M. Penley, Harvey Nuckolls, James W. Garneau, J. C. Dold and A. W. Sinclair.

Another "first-timer" was Francis D. Ellis, president of the Penn Beef Company, of Philadelphia. Mr. Ellis didn't know much about the beef business a few years ago. Now he is one of the most successful wholesalers in the trade. Which shows what brains and push will do.

Dr. Mary Pennington had charge of the programme for "packers' day" at the World's Refrigeration Congress, and she planned a most practical programme. In fact, it was like everything else that Dr. Pennington does—practical. She is ONE government expert who does not live and breathe in an atmosphere of pure theory.

Editor Pearse, of the Australian Pastoral Review, was a distinguished guest. Mr. Pearse thinks we will get a good deal of Australian beef on the Pacific Coast, but little in the East. He says we should get all the New Zealand mutton we want, however, and thinks it the best in the world.

President Bischoff's idea of an educational campaign to induce beef production spread like wildfire. The day after he sprang it on the convention he was besieged by advocates of the plan, outside the trade as well as inside it. Grain men were especially desirous of co-operating with the packers in this work.

A delegate to the World's Congress who took the greatest interest in everything he saw was Wu Ying, of Canton, China. He is a nephew of the famous Minister Wu Ting Fang, and like his bright and progressive uncle he likes America. The packing plants were marvellous to him, and he kept his notebook and his silver pencil in his hands all the time.

Vice-President G. H. Marting and Engineer Silas D. Dean represented the Stedman's Foundry & Machine Works of Aurora, Ind., at the convention. The Stedman machinery for bone grinding, etc., is a stand-by with the big packers, and the trade at large is also learning the value of this equipment.

A distinguished foreign visitor who came to take in the World's Refrigeration Congress, but found the meat packers' meeting more in his line, was C. L. Zerwes, of Frankfurt, Germany, who was the delegate of the Syndicus des Deutsches Fleischer-Verbanden. Herr Zerwes was amazed at the extent and character of our packing industry, and didn't hesitate to say so.

Conrad Yeager—you notice we spell it out in full since that splendid Pittsburgh showing—Conrad Yeager takes the prize as a convention pilot. The Pittsburgh party had the time of their lives on the trip to Chicago, and they have Conrad and his friends of the Columbus Packing Company to thank for most of it. Those Columbus boys certainly know how to entertain.

Rev. Dr. White's interpretation of the "Social side of business" listened like sociability turned inside out. Anyhow, he elaborated on the wrong brand of social-ism. The banquet committee sure forgot to dehorn the topic when they suggested it to the Doctor for analysis. His interpretation had not only the horns on, but the tail and hoofs, too. Real live stuff, good for you to take.

Almost everybody at the banquet was fooled on the toastmaster. They thought the ever-popular "Salt" Williams was to officiate. He sat next to Secretary McCarthy, who presided, and the secretary made a neat little "trick" speech of introduction which fooled everybody. "Salt" sat still at the finish and the man next to him got up—who proved to be the real toastmaster, Hon. William P. Williams, formerly United States Sub-Treasurer at Chicago, and an artist at the job, too!

Among Those Present at the Convention

A nearly complete list of those who attended the convention is as follows:

Gustav Bischoff, Sr., St. Louis Independent Packing Co., St. Louis, Mo.

Laurence H. Armour, Armour & Co., Chicago, Ill.

Geo. L. McCarthy, President The National Provisioner, New York, N. Y.

R. H. Hunter, Rollins & Burdick Co., Chicago, Ill.

James S. Agar, Western P. & P. Co., Chicago, Ill.

John R. Phillips, S. & S. Co., Chicago, Ill.

J. Ogden Armour, Armour & Co., Chicago, Ill.

J. Fred Shafer, Jacob C. Shafer Co., Baltimore, Md.

A. T. Pratt, The Paterson Parchment Paper Co., Passaic, N. J.

Paul I. Aldrich, Editor The National Provisioner, New York, N. Y.

Edwin B. Merritt, Armour & Co., Chicago, Ill.

Arthur D. White, Swift & Co., Chicago, Ill.

Chris Wolf, Wolf, Sayer & Heller, Chicago, Ill.

A. W. Armour, Armour & Co., Chicago, Ill.

E. B. Merritt, Armour & Co., Chicago, Ill.

L. M. Reesch, New York, N. Y.

Edw. S. LaBart, Morris & Co., Chicago, Ill.

Howard R. Smith, Jones & Lamb Co., Baltimore, Md.

Dr. Hans Wrede, Paterson Parchment Paper Co., Passaic, N. J.

Wm. F. Brunner, Paterson Parchment Paper Co., Passaic, N. J.

L. E. Griffin, P. E. Gray Co., Boston, Mass.

Walter H. Miller, Miller & Hart, Chicago, Ill.

H. G. Davy, P. G. Gray Co., Boston, Mass.

Frank W. Bering, Chicago, Ill.

S. J. Levine, L. H. Lang Co., New York, N. Y.

D. F. O'Brien, Jr., Morris & Co., Chicago, Ill.

J. L. O'Neill, O'Neill & Payne, Philadelphia, Pa.

Edward Egan, Pittsburgh Provision Co., Pittsburgh, Pa.

Charles F. Stow, Hy. Bower Chemical Mfg. Co., Philadelphia, Pa.

Arthur Meeker, Armour & Co., Chicago, Ill.

John M. Danahy, Danahy Packing Co., Buffalo, N. Y.

David V. Colbert, Miller & Hart, Chicago, Ill.

Robert S. Redfield, The Brecht Co., St. Louis, Mo.

Maurice Brown, Chicago, Ill.

L. A. Kramer, The Brecht Co., St. Louis, Mo.

E. M. Heller, B. Heller & Co., Chicago, Ill.

F. E. White, Armour & Co., Chicago, Ill.

Henry Marx, S. Oppenheimer & Co., Milwaukee, Wis.

Max J. Salzman, S. Oppenheimer & Co., Chicago, Ill.

H. P. Darlington, Armour & Co., Chicago, Ill.

A. J. Buffington, Swift & Co., Chicago, Ill.

F. W. Croll, Armour & Co., Chicago, Ill.

J. G. Beatty, Chicago, Ill.

Thomas C. Wilson, Morris & Co., Chicago, Ill.

Nelson Morris, Morris & Co., Chicago, Ill.

W. R. Allbright, The Allbright-Neil Co., Chicago, Ill.

H. A. Chetham, Swift & Co., Chicago, Ill.

L. H. Heymann, Morris & Co., Chicago, Ill.

H. B. Collins, Swift & Co., Chicago, Ill.

Oscar F. Mayer, O. F. Mayer & Bro., Chicago, Ill.

R. W. Carter, Swift & Co., Chicago, Ill.

F. L. Armstrong, Anglo-American Provision Co., Chicago, Ill.

H. Hoenigsberger, Western Sausage & Provision Co., Inc., New York, N. Y.

Henry W. Bernson, Thos. Barlum & Sons, Chicago, Ill.

L. A. Carton, Swift & Co., Chicago, Ill.

F. M. Bell, Anglo-American Provision Co., Chicago, Ill.

O. J. Dauzeisen, Dauzeisen Packing Co., Decatur, Ill.

Leo Grieshaber, Cincinnati Butchers' Supply Co., Cincinnati, O.

J. M. Chaplin, Swift & Co., Chicago, Ill.

F. A. Luchsinger, Swift & Co., Kansas City, Kan.

G. L. Jonas, Bechstein & Co., Chicago, Ill.

F. A. Benson, Anglo-American Provision Co., Chicago, Ill.

Samuel Dalton, Bechstein & Co., Chicago, Ill.

G. L. Chatfield, Mechanical Mfg. Co., Chicago, Ill.

Charles Martin, Globe Rendering Co., Chicago, Ill.

Thomas R. Buckham, Morris & Co., Chicago, Ill.

C. L. Coleman, S. Oppenheimer Co., Chicago, Ill.

C. S. Churchill, Swift & Co., Chicago, Ill.

H. B. Bogg, Anglo-American Provision Co., Chicago, Ill.

J. A. MacLean, Bechstein & Co., Chicago, Ill.

Chas. Rohe, Rohe & Co., New York, N. Y.

C. H. Doyle, Swift & Co., Chicago, Ill.

Albert Rohe, Rohe & Co., New York, N. Y.

R. W. Moody, M. Zimmerman, New York, N. Y.

H. C. Zaun, H. C. Zaun & Co., New York, N. Y.

J. F. Boyle, Anglo-American Provision Co., Chicago, Ill.

A. R. Fay, Swift & Co., Chicago, Ill.

E. S. Waterbury, Morris & Co., Chicago, Ill.

William B. Moulton, Chicago, Ill.

L. E. Williamson, National Car Co., Chicago, Ill.

Fred W. Bright, Anglo-American Provision Co., Chicago, Ill.

F. H. Frederick, Swift & Co., Chicago, Ill.

A. B. Friedman, Friedman Mfg. Co., Chicago, Ill.

W. L. Bryans, Rohe & Bros., Cleveland, O.

De Witt Brown, German-American Provision Co., Chicago, Ill.

N. O. Newcomb, Lake Erie Provision Co., Cleveland, O.

J. J. Ferguson, Swift & Co., Chicago, Ill.

J. B. McCrea, Ohio Provision Co., Cleveland, O.

Fred L. Bisbee, Morris & Co., Chicago, Ill.

F. A. Fowler, Swift & Co., Chicago, Ill.

H. P. Ranney, Ohio Provision Co., Cleveland, O.

J. A. Brown, German-American Provision Co., Chicago, Ill.

Jacob E. Decker, Mason City, Ia.

F. J. Gardner, Swift & Co., Chicago, Ill.

E. O. Freund, S. Oppenheimer & Co., Chicago, Ill.

M. R. Murphy, Cudahy Packing Co., Omaha, Neb.

F. J. Brennan, Brennan Packing Co., Chicago, Ill.

H. Wagner, Wagner Refining Co., Cincinnati, O.

L. A. Gilbert, Chicago, Ill.

Joseph E. Schoen, Chicago, Ill.

H. R. Gray, Swift & Co., Chicago, Ill.

Charles F. Hammond, Hammond, Standish & Co., Detroit, Mich.
 F. S. Hayward, Swift & Co., Chicago, Ill.
 J. W. Casey, North American Provision Co., Chicago, Ill.
 F. P. Maloney, Hammond & Standish Co., Detroit, Mich.
 Fred K. Higbie, American Meat Packers' Supply Co., Chicago, Ill.
 M. Murphy, Chicago Packing Co., Chicago, Ill.
 N. B. Higbie, Swift & Co., Chicago, Ill.
 W. B. Farris, Morris & Co., Chicago, Ill.
 H. H. Merrick, Colorado P. & P. Co., Denver, Colo.
 J. S. Cass, North American Provision Co., Chicago, Ill.
 Henry Meesler, Armour & Co., Chicago, Ill.
 G. B. Irons, Chicago, Ill.
 W. J. Speler, B. Heller & Co., Chicago, Ill.
 Zanzibar Bob, B. Heller, Chicago, Ill.
 F. A. Hart, F. A. Hart & Co., Chicago, Ill.
 Fred P. Hart, F. A. Hart & Co., Chicago, Ill.
 E. E. Chandler, Armour & Co., Chicago, Ill.
 F. C. Sawyer, Swift & Co., Chicago, Ill.
 Robert H. Hunter, Chicago, Ill.
 John L. Van Neste, H. T. Pond Co., 341 Washington street, New York, N. Y.
 S. Stretch, Arrow Mills, Spices, New York, N. Y.
 C. H. H. Fischer, A. Worm & Co., Indianapolis, Ind.
 Albert R. Worm, Worm & Co., Indianapolis, Ind.
 G. F. Swift, Jr., Swift & Co., Chicago, Ill.
 Chas. F. Kamrath, E. H. Stanton Co., Spokane, Wash.
 E. C. Merritt, Indianapolis Abattoir Co., Indianapolis, Ind.
 J. T. Ruddy, Lake Erie Provision Co., Cleveland, O.
 A. G. Riche, Fred K. Higbie Co., Chicago, Ill.
 James G. Craig, Parker-Webb Co., Detroit, Mich.
 Edw. F. Swift & Co., Chicago, Ill.
 Robert Shiell, Parker-Webb Co., Detroit, Mich.
 C. H. MacDowell, Armour & Co., Chicago, Ill.
 E. Heller, B. Heller & Co., Chicago, Ill.
 P. A. Jacobson, Interstate Packing Co., Winona, Minn.
 C. H. Swift, Swift & Co., Chicago, Ill.
 F. G. Betz, Zehner Bros. Packing Co., Toledo, O.
 W. L. Gregson, W. L. Gregson & Co., Chicago, Ill.
 John Wilkie, Morris & Co., Chicago, Ill.
 C. J. Short, Standard Slaughtering Co., Chicago, Ill.
 J. T. Taylor, J. T. Taylor Brokerage Co., Pittsburgh, Pa.
 Lewis Koemer, Worcester Salt Co., New York, N. Y.
 J. E. O'Hearn, Armour & Co., Chicago, Ill.
 Con Yeager, Pittsburgh B. & P. S. Co., Pittsburgh, Pa.
 Francis D. Ellis, Penn Beef Co., Philadelphia, Pa.
 E. A. Reineman, Fried & Reineman Packing Co., N. S., Pittsburgh, Pa.
 C. A. Schell, C. A. Schell Provision Co., Akron, O.
 W. H. Bell, National Box Co., Chicago, Ill.
 J. E. Hartwell, Anglo-American Provision Co., Chicago, Ill.
 Peter Klein, Klein Packing Company, Pittsburgh, Pa.
 W. P. Scarff, Morris & Co., Chicago, Ill.
 Chas. A. Sterne, Sterne & Son Co., Chicago, Ill.
 C. E. McMillan, C. E. McMillan Co., Pittsburgh, Pa.
 A. F. St. John, Worcester Salt Co., Columbus, O.
 Albert H. Focke, Wm. Focke's Sons Co., Dayton, O.
 S. C. Wolfe, Universal Sales Co., Angola, Ind.
 Geo. Gibson, Universal Sales Co., Angola, Ind.
 Chas. J. Walsh, Dunlevy & Bro. Co., Pittsburgh, Pa.
 Jos. N. Dailey, Columbus Packing Co., Columbus, O.
 Herman Falter, Columbus, O.

Frank Schmidt, Columbus Packing Co., Columbus, O.
 James Jacobsen, Morris & Co., Chicago, Ill.
 W. B. Davies, Davies Supply Co., Chicago, Ill.
 G. H. Stallman, Allbright-Nell Co., Chicago, Ill.
 W. S. Crozier, Duquesne Packing Co., Pittsburgh, Pa.
 A. J. Major, Major Bros. Packing Co., Mishawaka, Ind.
 Edward R. Wedge, Colorado Packing & Provision Co., Denver, Colo.
 G. G. Oetting, Armstrong Cork Co., Pittsburgh, Pa.
 J. B. Ziegler, M. K. Parker & Co., Chicago, Ill.
 M. K. Parker, M. K. Parker & Co., Chicago, Ill.
 P. J. Motz, Colorado Packing & Provision Co., Denver, Colo.



JAMES R. HILLS
 (Swift & Company, Chicago)
 Chairman Registration Committee.

C. G. Parker, M. K. Parker & Co., Chicago, Ill.
 C. H. Jacoby, M. K. Parker & Co., Chicago, Ill.
 B. W. Ziegler, M. K. Parker Co., Chicago, Ill.
 Geo. Rasch, Morris & Co., Chicago, Ill.
 W. H. Sheely, National Box Co., Chicago, Ill.
 W. J. Mullaley, American Can Co., Chicago, Ill.
 John J. Dupps, Cincinnati Butchers' Supply Co., Cincinnati, O.
 W. M. Weintraub, Hy. Bower Chemical Mfg. Co., Philadelphia, Pa.
 R. C. Clark, Hammond Packing Co., St. Joseph, Mo.
 Ernest Kissling, Morris & Co., Chicago, Ill.
 Fred Krey, Krey Packing Co., St. Louis, Mo.

H. L. Eberhart, Geo. A. Hormel & Co., Austin, Minn.
 Nate Hoffman, J. S. Hoffman Co., Chicago, Ill.
 J. S. Hoffman, J. S. Hoffman Co., Chicago, Ill.
 H. K. Krafts, Hammond Packing Co., St. Joe, Mo.
 L. H. Tower, American Meat Packers' Supply Co., Chicago, Ill.
 L. F. Swift, Swift & Co., Chicago, Ill.
 W. H. Gehrman, Kohrs Packing Co., Davenport, Ia.
 R. Mannheimer, Evansville Packing Co., Evansville, Ind.
 W. H. White, Jr., White Provision Co., Atlanta, Ga.
 H. Rosenfeld, Bechstein & Co., Chicago, Ill.
 Charles E. Dinger, Morris & Co., Chicago, Ill.
 J. F. Smith, Swift & Co., Chicago, Ill.
 M. McMillan, care J. T. McMillan Co., St. Paul, Minn.
 Lorenzo Benedick, Worcester Salt Co., New York.
 G. W. Williams, Williams Salt Co., Chicago, Ill.
 H. E. Cragin, Hammond Packing Co., St. Joe, Mo.
 W. W. Sherman, Swift & Co., Chicago, Ill.
 W. H. Fairchild, Sefton Mfg. Co., Chicago, Ill.
 J. P. Brunt, Sefton Mfg. Co., Chicago, Ill.
 C. B. Heinemann, Morris & Co., Chicago, Ill.
 C. D. Steele, Chicago, Ill.
 H. C. Marsh, Marsh & Marsh, Omaha, Neb.
 C. H. Davidson, Hammond Packing Co., St. Joe, Mo.
 R. C. Crawford, R. C. Crawford & Co., Pittsburgh, Pa.
 Jno. G. Hormel, Geo. A. Hormel & Co., Austin, Minn.
 B. F. Nell, Jr., Allbright-Nell Co., Chicago, Ill.
 W. B. Traynor, Swift & Co., Chicago, Ill.
 Fred J. Hoffman, Ernst Freund, Cincinnati, O.
 Frank A. Heckle, Ernst Freund, Cincinnati, O.
 Henry Kleiber, Chicago, Ill.
 Ernst Freund, Ernst Freund, Cincinnati, O.
 A. W. Gaddum, The Brecht Co., St. Louis, Mo.
 Ralph W. E. Decker, J. E. Decker & Sons, Mason City, Ia.
 Jos. L. Roth, J. Roth Packing Company, Cincinnati, O.
 C. A. Peacock, Chicago, Ill.
 Chas. E. Roth, John C. Roth Packing Co., Cincinnati, O.
 R. T. Keefe, Henneberry Co., Arkansas City, Kan.
 W. S. Dolph, Hammond Packing Co., St. Joseph, Mo.
 C. M. Robinson, Jr., B. P. Clapp Ammonia Co., Cincinnati, O.
 W. P. Jones, Swift & Co., Chicago, Ill.
 F. C. Dorwall, Morris & Co., Chicago, Ill.
 Chas. H. Doermann, Doermann & Roehrer, Cincinnati, O.
 F. Folza, Roth Packing Co., Cincinnati, O.
 E. F. Glaser, Roth Packing Co., Cincinnati, O.
 G. Wunder, G. Zehler Provision Co., Cincinnati, O.
 Paul Feicker, John C. Roth Packing Co., Cincinnati, O.
 Geo. Kaufmann, The Sander Packing Co., Cincinnati, O.
 W. S. Johnston, Swift & Co., Chicago, Ill.
 George Zehler, Geo. Zehler Provision Co., Cincinnati, O.
 G. H. Dunlap, Colorado Packing & Provision Co., Denver, Colo.
 H. H. Swift, Swift & Co., Chicago, Ill.
 Frank Myers, Roth Packing Co., Cincinnati, O.
 M. E. Crowe, John C. Roth Packing Co., Cincinnati, O.
 Ed. Denahy, Chicago, Ill.
 John Keeler, John Keeler & Co., Pittsburgh, Pa.
 Chas. Eikel, Colorado Packing & Provision Co., Denver, Colo.
 F. M. Moffat, Grimes L. & S., Toronto, Ont.
 F. J. Ketchell, Swift & Co., Chicago, Ill.

J. E. Davidson, Davidson & Weil, New York, N. Y.
 S. H. Weil, Davidson & Weil, New York, N. Y.
 F. N. Ellis, Colorado Packing & Provision Co., Colorado Springs, Colo.
 G. B. Robbins, Armour & Co., Chicago, Ill.
 J. A. Gunn, Gunn's Ltd., Toronto, Ont.
 A. C. Fink, A. Fink & Sons, Newark, N. J.
 F. J. King, Swift & Co., Chicago, Ill.
 C. Schmidt, Cincinnati Butchers' Supply Co., Cincinnati, O.
 Chas. H. Ogden, Pittsburgh Provision & Packing Co., Pittsburgh, Pa.
 Theodore C. Sanders, Morris & Co., Chicago, Ill.
 C. J. Faulkner, Jr., Halstead & Co., Jersey City, N. J.
 R. F. Bouton, John Chatillon & Sons, New York, N. Y.
 C. H. Kane, Swift & Co., Chicago, Ill.
 S. T. Nash, Cleveland Provision Co., Cleveland, O.
 J. F. Flaherty, Halstead & Co., Jersey City, N. J.
 W. J. Richter, Allbright-Nell Co., Chicago, Ill.
 E. Bloso, Cleveland Provision Co., Cleveland, O.
 O. A. Lies, Chicago, Ill.
 Henry Sartorius, Sartorius Provision Co., St. Louis, Mo.
 F. T. Guendel, General Vehicle Co., Inc., New York, N. Y.
 T. W. Barnes, General Vehicle Co., Inc., Long Island City, N. Y.
 L. A. Engel, St. Louis Ind. Packing Co., St. Louis, Mo.
 O. M. Rexinger, Morris & Co., Chicago, Ill.
 W. E. Hathaway, Halstead & Co., Jersey City, N. J.
 W. Leavitt, Swift & Co., Chicago, Ill.
 G. Bischoff, Jr., St. Louis Independent Packing Co., St. Louis, Mo.
 J. C. C. Waldeck, Waldeck Packing Co., St. Louis, Mo.
 W. W. Krenning, St. Louis Independent Packing Co., St. Louis, Mo.
 A. Weisbecker, Chas. Weisbecker, New York, N. Y.
 Chas. L. Krause, St. Louis Independent Packing Co., St. Louis, Mo.
 H. J. Willwerth, J. B. Ford Co., Wyandotte, Mich.
 Russell Ryan, Ryan Bros., Winnipeg, Man.
 Oscar J. Francis, Morris & Co., Chicago, Ill.
 J. E. Libby, Chicago, Ill.
 C. G. Diebel, National Retail Grocer, St. Louis, Mo.
 John O. Schenk, F. Schenk Packing Co., Wheeling, W. Va.
 Geo. W. Kalbitzer, The C. Kalbitzer Packing Co., Wheeling, W. Va.
 Jas. A. McCutcheon, Mahan-McCutcheon Co., Pittsburgh, Pa.
 H. C. Thom, Swift & Co., Chicago, Ill.
 L. B. Edmondson, Gordon, Ironside & Fares Co., Moose Jaw, Saskatchewan, Canada.
 Glenn W. Knight, Morris & Co., Chicago, Ill.
 H. Arnheim, Randall & Co., Philadelphia, Pa.
 H. L. Harris, Pacific Coast Borax Co., New York, N. Y.
 F. B. Gifford, Fowler Canadian Co., Ltd., Windsor, Ont.
 L. J. Wilbur, Swift & Co., Chicago, Ill.
 R. W. Wright, Chicago, Ill.
 M. T. Traylor, National Stock Yards Bank, East St. Louis, Ill.
 Wm. A. Hopkins, Roth Packing Co., Cincinnati, O.
 B. Helman, Roth Packing Co., Cincinnati, O.
 E. L. Ward, Swift & Co., Chicago, Ill.
 V. F. Nell, Allbright-Nell Co., Chicago, Ill.
 H. L. White, Chicago, Ill.
 Jas. Law, Matthews-Laing Co., Ltd., Toronto, Ont.
 H. Moon, Armstrong Cork Co., Pittsburgh, Pa.
 S. G. Wiggins, Morris & Co., Chicago, Ill.
 C. O. Young, Swift & Co., Chicago, Ill.
 W. Speelman, Armstrong Cork Co., Pittsburgh, Pa.
 A. Nelson, Chicago, Ill.
 E. F. Rath, The Rath Packing Co., Waterloo, Ia.

A. A. Morse, Johnson-Morse Can Co., Wheeling, W. Va.
 C. R. Strotz, Swift & Co., Chicago, Ill.
 John R. Hunter, Morris & Co., Chicago, Ill.
 S. J. Davies, Johnson-Morse Can Co., Wheeling, W. Va.
 W. Kercheval, Armstrong Cork Co., Pittsburgh, Pa.
 H. Fred Vissman, H. F. Vissman & Co., Louisville, Ky.
 S. Baldwin, Armstrong Cork Co., Pittsburgh, Pa.
 S. Dean, Stedman Foundry & Mach. Wks., Aurora, Ind.
 R. J. Quinn, Morris & Co., Chicago, Ill.
 Anton Moder, John C. Roth Packing Co., Cincinnati, O.
 John J. Coyne, Worcester Salt Co., Chicago, Ill.
 G. L. Mallery, Chicago, Ill.
 W. J. Kelly, National Molasses Co., St. Louis, Mo.
 A. Bech, B. Heller & Co., Chicago, Ill.
 V. D. Gustafson, Fowler Can Co., Ltd., Windsor.
 William F. Schludenberg, Wm. Schludenberg & Son, Baltimore, Md.
 Richard H. Wynn, official reporter for the Association, Chicago, Ill.
 B. B. Myles, Myles Salt Co., Ltd., New Orleans, La.
 E. T. Cash, Krey Packing Co., St. Louis, Mo.
 J. J. Murphy, Swift & Co., Chicago, Ill.
 F. W. Niebling, F. W. Niebling Co., Cincinnati, O.
 John W. Hall, Sterne & Son Co., Chicago, Ill.
 E. Wilson, Armour & Co., St. Joseph, Mo.
 Conrad H. Young, Armstrong Cork Co., Pittsburgh, Pa.
 J. Seofield, Butchers' & Packers' Gazette, St. Louis, Mo.
 M. Matthes, Wilmington Prov. Co., Wilmington, Del.
 J. E. Harrington, Jacob Vogel & Son, Cincinnati, O.
 A. S. Klein, Schwenger, Klein Co., Cleveland, O.
 M. Waixel, M. Waixel & Co., Chicago, Ill.
 R. Mair, Swift & Co., Chicago, Ill.
 Chas. E. Hazard, Armour & Co., Chicago, Ill.
 Frederick Luley, Luley Abattoir Co., St. Paul, Minn.
 J. W. Stull, Halstead & Co., Jersey City, N. J.
 C. L. Brooks, Albert Lea Packing Co., Albert Lea, Minn.
 A. Cross, Cross, Roy & Saunders, Chicago, Ill.
 E. Hinds, Fowlers' Can Co., Ltd., Windsor, Canada.
 M. G. Middaugh, Swift & Co., Chicago, Ill.
 A. V. Creary, Amer. Can Co., Chicago, Ill.
 Nicholas J. Janson, Geo. A. Hormel & Co., Cincinnati, O.
 A. R. Urion, Armour & Co., Chicago, Ill.
 W. S. Smith, Armour & Co., Chicago, Ill.
 H. G. Edwards, American Can Co., Chicago, Ill.
 R. C. McManus, Swift & Co., Chicago, Ill.
 Chas. J. Krieger, Morris & Co., Chicago, Ill.
 Jos. A. Jansen, John C. Roth Packing Co., Cincinnati, O.
 G. Summer, St. Louis Independent Packing Co., St. Louis, Mo.
 C. F. Hagadorn, German-American Provision Co., New York, N. Y.
 Ralph Ettlinger, Koch Butchers' Supply Co., Kansas City, Mo.
 Geo. J. Lawrence, J. B. Ford & Co., Wyandotte, Mich.
 S. R. Tompkins, Central Mfg. Co., Lockland, O.
 F. B. McAdow, Chicago, Ill.
 Theo. O. Vilter, Vilter Mfg. Co., Milwaukee, Wis.
 H. S. Bicket, Oake Packing Co., Rockford, Ill.
 Thos. E. Tower, Sullivan Packing Co., Detroit, Mich.
 E. C. Hall, Armour & Co., Chicago, Ill.
 M. D. Harding, Anglo-American Prov. Co., Chicago, Ill.
 F. W. Waddell, Armour & Co., Chicago, Ill.

William Flannigan, Sullivan Packing Co., Detroit, Mich.
 Frank J. Sullivan, Sullivan Packing Co., Detroit, Mich.
 C. E. Moore, Swift & Co., Chicago, Ill.
 F. S. Russell, Armour Ammonia Works, Chicago, Ill.
 G. H. Elliott, F. K. Higbie Co., Chicago, Ill.
 Arthur Lowenstein, Morris & Co., Chicago, Ill.
 W. T. P. Wardrop, Armour & Co., Chicago, Ill.
 L. A. Howard, L. A. Howard & Co., Chicago, Ill.
 James Cain, Port Huron Packing Co., Port Huron, Mich.
 G. Zeiger, G. Zeiger & Co., Chicago, Ill.
 H. S. Robbins, National Ammonia Co., St. Louis, Mo.
 G. Wolfram, G. W. Zeiger Co., Chicago, Ill.
 J. C. Atwood, National Ammonia Co., St. Louis, Mo.
 James Stirling, Morris & Co., Chicago, Ill.
 R. S. Matheson, Swift & Co., Chicago, Ill.
 Ewing Hymers, National Ammonia Co., St. Louis, Mo.
 Walter W. Berry, Henry Berry & Co., Melbourne, Australia.
 John Forbes, Cudahy & Co., Chicago, Ill.
 C. D. Craig, The Urbana Egg Case Co., Urbana, O.
 L. A. Meeker, Armour & Co., Chicago, Ill.
 E. A. Cudahy, Jr., The Cudahy Packing Co., Chicago, Ill.
 W. H. Craig, Urbana Egg Case Co., Urbana, O.
 Mr. Gersell, Morris & Co., Chicago, Ill.
 R. C. Newton, Swift & Co., Chicago, Ill.
 Chas. Hanek, The John Hoffman Packing Co., Cincinnati, O.
 J. G. Oberndorf, Adler & Oberndorf, Chicago, Ill.
 Harry Hoffman, J. S. Hoffman Co., Chicago, Ill.
 F. E. Wilhelm, Cudahy Packing Co., Chicago, Ill.
 M. K. Parker, M. K. Parker & Co., Chicago, Ill.
 Chas. H. Sterne, Sterne & Son Co., Chicago, Ill.
 D. P. Cosgrove, Sterne & Son Co., Chicago, Ill.
 M. R. Murphy, Cudahy Packing Co., Chicago, Ill.
 W. H. Overman, Chicago, Ill.
 J. L. Taylor, Taylor Bros., Chicago, Ill.
 C. H. Jacoby, M. K. Parker Co., Chicago, Ill.
 E. J. Ward, United Cork Co., Chicago, Ill.
 G. C. Venard, Hammond Co., St. Joseph, Mo.
 C. A. Tatum, United Cork Co., Dallas, Tex.
 J. D. Turner, Darling & Co., Chicago, Ill.
 Harry D. Oppenheimer, S. Oppenheimer & Co., Chicago, Ill.
 Joy Simpson, National Ref. Lines, Chicago, Ill.
 Harry Osman, National Car Line Co., Chicago, Ill.
 W. C. Potter, Swift & Co., Chicago, Ill.
 S. S. Van Gelder, Van Gelder Bros., Hague, Holland.
 F. T. Fuller, Wilson Provision Co., Peoria, Ill.
 G. C. Shepard, Cudahy Packing Co., Chicago, Ill.
 R. S. Oxley, Hammond Packing Co., St. Joseph, Mo.
 Martin Hirsch, General Provision Co., New York.
 Henry J. Keebler, Illinois Casing Co., Chicago, Ill.
 F. M. de Beers, Swenson Evaporator Co., Chicago, Ill.
 L. B. Weil, Weil Packing Co., Little Rock, Ark.
 W. J. Russell, Swift & Co., Chicago, Ill.
 David Drummond, Drummond Packing Co., Eau Claire, Wis.
 H. L. Gates, The Heekin Can Co., Cincinnati, O.
 Carl L. Overaker, German-American Provision Co., Chicago, Ill.
 Ray P. Robson, Heekin Can Co., Cincinnati, O.

(Continued on page 129.)

The World's Refrigeration Congress

The Third International Congress of Refrigeration closed its sessions at Chicago this week after a most successful programme had been carried out. The Congress met in six different sections, and its activities were so varied and extensive that a complete report of them in this place is impossible. The papers and addresses of the Congress which are of interest to our industries will be reviewed in the columns of *The National Provisioner* hereafter.

The officers of the Congress and the committees, from Secretary General Nickerson down, deserve the greatest credit for the carrying out of such a stupendous task. Foreign delegates leave the United States deeply impressed with what they have seen and heard, and the result will be deep and lasting.

The great "cold storage banquet" which closed the Congress was an object lesson to the American public even more than to the diners. It showed what food refrigeration meant, and how harmless it was when properly conducted.

The great International Refrigeration Exposition was another lasting object-lesson, particularly the splendid government exhibit of refrigerated food products. In this connection too much praise cannot be given Dr. Mary E. Pennington of the United States Department of Agriculture for the eminently practical character of her work in this direction, and for its splendid results.

Proceedings of the Congress.

The formal opening session of the Third International Congress of Refrigeration, as reported in the last issue of *The National Provisioner*, took place at the Auditorium of the new National Museum Building, Washington, D. C., on Monday, September 15, at 10:30 a. m., President Dr. Frank W. Gunsaulus presiding.

The Honorable William Jennings Bryan, Secretary of State, tendered the delegates a hearty welcome in behalf of the United States Government. Mr. Bryan pointed out as the reason for calling on the State Department on this occasion of great international importance, was that international diplomacy consisted largely in keeping cool, a point which was fully appreciated by the delegates.

The opening address of the Congress was then delivered by Dr. Gunsaulus, who asserted that "Waste of Food is a Crime Against Civilization" and that an effective remedy was to be found in refrigeration. Dr. Gunsaulus then presented Mr. W. J. Rushton, Birmingham, Ala., president of the American Association of Refrigeration, who made a few remarks regarding the organization of the Congress. At the conclusion of these remarks Dr. Gunsaulus presented Mr. Andre Lebon, president of the International Association of Refrigeration, ex-Minister of the Colonies and ex-Minister of Commerce, Paris, France, who thanked the American Government on behalf of the International Association for the hearty welcome extended.

Short addresses were then delivered by representatives of several governments as follows:

Argentine Republic—Dr. Romulo S. Naon,

Envoy Extraordinary and Minister Plenipotentiary of the Argentine Republic to the United States.

Australia—(Commonwealth of)—Mr. A. W. Pearce, editor *Pastoral Review*, Sydney, Australia.

Austria—Dr. Alfred Grunberger, Secretary in the Ministry of Commerce, Vienna, Austria.

Belgium—Mr. L. Bauwens, Inspector-General of Agriculture and Public Works, Brussels, Belgium.

Brazil—Mancel Jacinthe Ferrieira de Cunha, Consul-General of Brazil at New York City.

Canada—Mr. J. A. Ruddick, Commissioner Department of Agriculture, Ottawa, Canada.

Chile—Dr. Ricardo B. Matte.

Denmark—Prof. J. T. Lundbye, Polytechnic Institute at Copenhagen, Denmark.

France—M. Maurin, Intendant General of the Reserve Force, Paris, France.

Germany—Dr. Hanz Lorenz, Professor at the Royal Technical High School in Danzig, Germany.

Greece—M. Salapaulus, Consul of Greece at Chicago.

Honduras—R. Camilo Diaz, Consul General of Honduras, New York City.

Hungary—Dr. Kalamán Gally, Vice Secretary of the Minister of Agriculture, Budapest, Hungary.

Italy—Dr. G. B. Ceccato, Commercial Delegate to the Italian Embassy, Washington, D. C.

Netherlands—Prof. J. P. Kuenen, Leyden University, Leyden, Holland.

Norway—Mr. Gotfried Furuholmen, Director of Norwegian Railways, Christiania, Norway.

Paraguay—Mr. Hector Velazquez, Envoy Extraordinary and Minister Plenipotentiary, Washington, D. C.

Russia—Major General A. A. Satkewitch, Nicholas Academy for Engineers, St. Petersburg.

Sweden—Prof. John Gustaf Richert.

Switzerland—Dr. Paul Ritter, Envoy Extraordinary and Minister Plenipotentiary.

Official Reception to the Delegates.

The official reception of the delegates of the Third International Congress of Refrigeration by the Hon. John Barrett, Director of the Pan-American Union, and the American Association of Refrigeration, took place at the new Pan-American Union Building Monday evening, 9 o'clock, the United States Government being represented by the Hon. William Jennings Bryan, Secretary of State, Hon. David F. Houston, Secretary of Agriculture, and Hon. William C. Redfield, Secretary of Commerce. A delightful musical programme was rendered by the United States Marine band and refreshments were served by Rocher.

On Tuesday at 10 a. m., immediately after his return to Washington, the President of the United States received all the delegates to the Third International Congress of Refrigeration, who were all personally presented.

Immediately after the reception the delegates left their respective hotels for the Union Station where they boarded the two special trains for Chicago, arriving at the Pennsylvania Station the following morning at 9 o'clock.

The separate sessions of the six sections began on Wednesday, as did the elaborate entertainment programme, lasting for more than a week thereafter. Saturday, September 20, was "Stock Yards Day," when the

visitors saw the wonders of the world's packinghouse center.

Special joint sessions were held with the American Meat Packers' Association, the American Society of Refrigerating Engineers, the Natural Ice Association of America, the National Poultry, Butter & Egg Association and other national trade organizations.

The Great Cold Storage Banquet.

The Banquet of the World's Refrigeration Congress was held at the White City on Tuesday evening, September 23, and it may be said that nothing like it was ever seen or heard of before. Almost a thousand guests were present. The hundreds of ladies and many of the men were in a flutter of expectation at the prospect of eating, for the first time in their lives, a dinner where every item on the bill of fare had been in cold storage for periods ranging from 10 days to one year.

The enormous hall was beautifully decorated with hundreds of latticed baskets filled with flowers, hidden electric lights showing through. In honor of the foreign members and their guests the flags of their various countries were displayed. The food was of the finest, not the slightest taste of any kind that the most fastidious palate could detect was noticeable to show that any single article was ever in cold storage.

One of the unusual decorative features was a huge cake of artificial ice, with a monster salmon frozen in the center, showing as clearly as in a crystal bed. This was hauled around the banquet room by white-coated attendants, followed by a wagon loaded with splendid specimens of cold-storage turkeys and chickens of the finest quality, in absolutely perfect condition, for the inspection particularly of the ladies. It was a revelation and an education to them that no amount of newspaper space or explanations could duplicate. Seeing is believing, and nothing that the committee could have done for the good of the industry could ever replace this object lesson.

The chief speakers of the evening were United States Senator Lawrence Y. Sherman, Hon. William E. Mason and President Andre Lebon of the International Association. Senator Sherman, all fire and enthusiasm, displayed a surprising knowledge of existing conditions relating to our food supply, and the necessity for and benefits of cold storage.

A ball followed the banquet, and dancing continued until 1 a. m. It was a picturesque ending for the Third International Congress of Refrigeration.

The menu at this banquet was as follows:

Canapes de Caviar Americain		
Celeri	Consomme Messaline	Olives
	Pecans	
Darne de Saumon, Royale		
Oeufs d'Alose Grilles, Maitre d'Hotel		
Concombres Fines Herbes		
Aiguillette de Dinde, Villeroy		
Tartelettes d'Airelles		
Petits Pois a l'Etuvee		
Tournedos de Boeuf, Melba		
Tomates Farcies, Bressanne		
Sorbet Riche		
Goulet de Printemps, Roti a la Broche		
Coeurs de Laitue, St. Laurent		
Souffle International		
Mignardises		
Roquefort due Pays		
Bisquits		
Demi Tasse		
Dry Manzanilla Sherry		
Condax Cigarettes		
Apollinaris		
Chateau Yquem, 1907		
Chateau Pontet Canet, 1904		
Pommery Champagne, 1904		
Liqueur a l'Ananas		
Partagas Cigars		

The International Refrigeration Exposition

The International Refrigeration Exposition at the International Amphitheater, Forty-second and Halsted streets, Chicago, opened September 17 and will continue until October 1.

As an educational demonstration of the value of refrigeration to the human race throughout the world it is worth traveling many miles to study, and the individual exhibits of machinery and equipment are more than praiseworthy. The exhibitors have spared neither time, trouble nor expense to make their respective exhibits attractive and instructive, and it is evident they have signally succeeded in their endeavor. The United States Department of Agriculture's refrigerator, 150 feet long and 20 feet wide, is a very interesting and instructive exhibit, and is ably presided over by Dr. Mary E. Pennington, the government's expert on refrigerated foodstuffs.

In Chicago there are in use over 600 refrigerating machines, aggregating approximately 40,000 tons of refrigeration per day, of which Packingtown alone uses about 20,000 tons. All meats and meat products are subjected to refrigeration more or less all the year round.

At the present day without refrigeration there would be periods of absolute starvation, unquestionably, and yet the howl against refrigeration still goes up, though it is beginning to dwindle into a yelp and presently will be a puny little whine. Immense as the business of refrigeration and ice making is, it is in its infancy, in the opinion of those in a position to know best.

The following are among the exhibitors at the exposition:

The American Society of Refrigerating Engineers have headquarters in the Exposition building, with a room for members to use as a writing room, etc. The publications of the society are on exhibition and Wm. H. Ross, the secretary, presides.

The Arctic Machine Company, of Canton, Ohio, represented by Messrs. Pownall, Udell and Whalen, have a very attractive exhibit, consisting of ammonia compressors of various sizes; an Arctic-Pownall brine cooler; a block of raw-water ice made under the Arctic-Pownall system (and evidently 99.99 per cent. pure), and an ammonia condenser and fittings.

Armour Ammonia Works' exhibit is in charge of F. C. Acton and F. S. Russell, and consists of ammonia cylinders and a refrigerated pipe sign attractively displayed. "Absolutely pure ammonia" is the idea the exhibit conveys.

Armstrong Cork Company, Pittsburgh, Pa., exhibit their "Nonpareil" corkboard and high pressure pipe covering, also a model of installation and cross-sectional pictures of a cold storage warehouse. Cork paving brick is a novel exhibit, and an innovation in paving material which is said to be cheap and lasting. Messrs. Oetting, Moon and Kercheval are in charge.

Henry Bower Chemical Manufacturing Company, Philadelphia, has an exhibit of Ammonia cylinders and drums, with Messrs. Stow and Weintraub in charge—and losing no opportunity to advertise the merits of their product.

De La Vergne Machine Company, New York City, have a heavy exhibit in charge of Messrs. Hutchinson, Greene and Beck, consisting of one 25-ton refrigerating machine of the "Safety" type, Corliss-engine-driven; one 20 and one 40-ton counter current ammonia condenser, one 6-inch Ammonia purifier; one 20 h. p. crude oil engine; malleable iron ammonia fittings, etc. The completeness of this exhibit is apparent and attracts much attention.

Frick Company, Waynesboro, Pa., are there with another heavy exhibit, consisting of one 35-ton horizontal double-acting refrigerating machine, Frick Corliss engine; one 22-ton vertical single-acting refrigerating machine with Corliss engine; one 10-ton triple-pipe brine cooler; one 10-ton double-pipe counter current ammonia condenser; two 2-ton new style vertical single-acting compressors; ammonia valves and fittings. The exhibit is in charge of A. T. Criswell and S. W. Calhoun, who certainly have an exhibit to be proud of.

The B. Franklin Hart, Jr., Company, St. Louis, Mo., exhibit a working model of a cooling tower; cooling trays; distributing troughs and photographs of methods of installation. Arthur J. Dunkle and Frank Roder are in charge, and ably demonstrate their apparatus to interested audiences.

Herf & Frerichs Chemical Company, St. Louis, exhibit anhydrous ammonia cylinders and aqua ammonia drums, in charge of Messrs. Whittemore, Johnson, Frank, Triebel and Egan, who talk fluently in anhydrous, aqua or any other old language.

Ice and Cold Storage, London, England, have space for visitors to rest and examine copies of Ice and Cold Storage and book publications. Miss E. Sullivan is in charge.

Ice and Refrigeration, Chicago, published by the Nickerson & Collins Company, have headquarters in charge of Messrs. Schwengel, Reed, Hill and Jackson, who distribute specimen copies. Books on ice, ice making, refrigeration, cold storage and kindred topics are displayed.

H. W. Johns-Manville Company, New York, exhibit sheet and granulated cork; pipe and boiler covering; membrane waterproofing; mastic flooring; roofing; ammonia, steam and water packings; boiler preservatives; asbestos and magnesia products; insulating and building papers; electrical supplies, etc. C. D. Havenstrite, engineer, is in charge, and shows visitors all his wares and explains their respective merits. This is a big exhibit by one of the biggest concerns in the country.

Gifford-Wood Company, Hudson, N. Y., exhibit a full equipment of ice tools and models of ice and coal-handling machinery in operation. This is a striking and practical showing. Messrs. Gifford, Heard and Vernier have charge of the exhibit. An extremely meritorious invention is a protector for ice delivery men, to keep them dry.

Merchants Refrigerating Company, New York, have a reception and reading room in charge of Messrs. F. A. and G. A. Horne and Alex Moir. Photographs of plants and methods of handling and storing perishable products decorate the quarters liberally, and are extremely interesting. Plants in Jersey

City and Newark, N. J., are also shown.

National Ammonia Company, St. Louis, Mo., is represented by Messrs. Dannenbaum, Atwood, Hymers, Robbins, Howe, Finke, Luetkewitte and Zelle, and their exhibit consists of a decorative background portraying "Universal" brands, a stand of "National" anhydrous ammonia cylinders, and "Peerless" aqua ammonia pump, and cylinder showing valve construction. Ammonia plays an important part in refrigeration, and to accomplish the best results must be strictly pure and dry, and this the "National" representatives impress upon their visitors without stint.

Refrigerating World, New York City, displayed and distributed copies of Refrigerating World and Engineers' Log, in charge of Chas. B. Thompson and E. F. Cassleman.

Swenson Evaporator Company, Chicago, exhibit one double effect distilled water evaporator complete, one evaporator for concentrating tank water, beef extract, glue, etc.; condenser and pump; tube fastening, etc. The exhibit is in charge of F. M. de Beers, P. H. Appell and R. D. Kehoe, who explain the merits of their extremely interesting machines and equipment exhibited. This was the exhibit which attracted the most attention from the packers present.

The Stevenson Company, Chester, Pa., exhibited one insulated cold storage door, one special freezer door for icy doorways; one small platform ice door; one revolving door for ice cream hardening rooms; hinges, fasteners, etc. Mr. Stevenson was in charge. This company furnished the doors complete for the United States Government refrigerator and freezer, in all, 26 doors. Doors are an important factor in freezing and refrigerating.

Swift & Company exhibited a refrigerator car in charge of Mr. Libby. This car is a regular refrigerator car, with the sides taken out and glass substituted and the car loaded with all kinds of meats under refrigeration. The exhibit consists of all kinds of fresh meats, lard, compound, eggs, butter, oleomargarine, poultry, fancy offal, etc., and is one of the most interesting exhibits in the building.

Tait-Nordmeyer Engineering Company, St. Louis, Mo., have a consultation office and reception room in charge of R. H. Tait and L. C. Nordmeyer. Visitors have the privilege of stenographic services, etc. "Go as far as you like" is the slogan.

Triumph Ice Machine Company, Cincinnati, Ohio, represented by Messrs. Wood, Norden and Gilbert, exhibited one horizontal double-acting ammonia compressor; one vertical single-acting enclosed type ammonia compressor, belt driven; one shell-type brine cooler; condenser and brine cooler fittings, valves, etc.; also one A. C. and one D. C. electric motor. An extremely interesting exhibit, attractively arranged.

United Cork Companies, Lyndhurst, N. J., exhibited samples of granulated cork and corkboard, also a model showing construction of cork insulation. Messrs. Ward, Reeves and Binzela are in charge, boosting their products for all they are worth.

Union Fibre Company, Winona, Minn., exhibited a refrigerator car insulated with four-ply Linofelt; also samples of Linofelt, Fibrofelt, Lith and Union corkboard. Messrs. Boynton, Booth, More, London, Brown and

Leeds were in charge. The car is also fitted with collapsible tanks, weather-proof ventilation and patent door fasteners.

Union Insulating Company of Chicago, represented by Messrs. McPartlin, Main, Bracken, Rogers and Webster, exhibited pure corkboard, composition corkboard, waterproof lith board; rock corkboard; fibrofelt sheets, etc. Got to go some to beat this contingent as business getters; right on the job all the time, day and night.

Vilter Manufacturing Company, Milwaukee, Wis., have a very heavy exhibit, as follows: One 125-ton horizontal double-acting ammonia compressor of the new "International" type, direct connected to rolling-mill type tandem Corliss steam engine, in operation without load; ammonia fittings; two accumulators, T type and vertical type. Their exhibit is in charge of Messrs. Trubshaw and C. J. Heinzelman. Theodore Vilter is representative at large.

Henry Vogt Machine Company, Louisville, Ky., exhibit one 20-ton absorption refrigerating machine; absorber condenser; brine cooler; multitube rectifier and exchanger; double pipe condenser; double pipe exchanger; ammonia pump; model water tube boiler; drop forge fittings, etc. Their exhibit is in charge of Messrs. Vogt, Heuser, Edinger and Maher.

York Manufacturing Company, York, Pa., exhibit a 1913 double-acting horizontal compressor and steam engine; a 1912 enclosed double, single-acting vertical belt-driven compressor; a 1912 enclosed single-acting belt-driven compressor; a Shipley atmospheric ammonia condenser coil; a vertical accumulator; a wrought iron welded header; an ammonia distiller; an automatic closing can dump; an aqua ammonia pump; a horizontal generator, analyzer and shell and tube absorber.

I. C. Franklin, Chicago, and E. T. Skinkel of Chicago, designed and supervised the construction of the United States Government refrigerator and freezer, the ice fountain and slide, as well as laying out the general exhibits.

The Union Insulating Company furnished the insulation for the Government box; Armour Ammonia Works, Henry Bower Chemical Company, and the National Ammonia Company the ammonia, etc.; Stevenson Cold Storage Company, the doors; and Vilter, York and Frick the refrigerating machinery and equipment.

The Big Feature of the Show.

The refrigerating box erected by the government is in the center of the amphitheater and is 150 feet long and 20 feet wide and divided into 23 rooms. The height of the box is: One section of 100 feet, 14 feet high, and the other section of 50 feet 19 feet high. The inside and outside of the walls are plaster over metal lath, and the center of corkboard insulation.

There are five refrigerating machines operating in the box; viz., a 10-ton Frick machine and a 16-ton Larsen machine on the freezers; a York 11-ton machine, a Vilter 8-ton machine and a Baker 8-ton machine on the higher temperature boxes. These machines also handle the ice fountain and the ice slide.

The temperatures carried in the Department of agriculture refrigerator are 15 deg.

above zero Fahr.; 32 to 36 deg. Fahr., and 36 to 38 deg. Fahr. Everything in the food line subject to refrigeration is carried in this box, demonstrating the value and usefulness of refrigeration. Material for the banquet was carried in this refrigerator and everything used except the meats was at least 18 months old.

Government food experts are in charge of the exhibit. The box cost to build and equip approximately \$15,000.

REFRIGERATION NOTES.

The "Freezers of the World" visited the Milwaukee breweries Friday last, chaperoned by Theo. Vilter; who, by the way, says: "The ideal temperature for beer is 46° to 48° Fahr." Please note. They had a great time in Milwaukee; everybody has. Friday night a little band came down the highway singing:

Oh the Brew'ry! Oh the Brew'ry!
They do such things, and they see such things,

In the Brew-er-ee, in the Brew-er-ee,
We sure will go there again!

Chorus.

To the Brew'ry, the Brew-er-ee,
We'd love to die in a Brew'ry.
We'd pawn our duds, to annex the suds
They brew in the bloomin' Brew'ry.

From the horrid to the frigid zone seems but a short step, taking that weather we had on the one hand and the Government freezer at the Exposition on the other.

Dr. Mary E. Pennington, while able to tell you exactly what's what in food values, admits, as a cook she cannot boil an egg, so 'tis said. Otherwise Dr. Mary looks like being well worthy of annexation.

A working model of an ice making machine, completely equipped, was making cakes of ice just exactly high-ball size. Now, if they had another machine making the "spike" that goes with the congealed aqua pura—say! pull down the shade!

It appears ice can be made in nearly every language under the sun, moon and stars.

There is a whole lot that can be learned by a study of the U. S. Government exhibit, and the Swift refrigerator car, not only as to conservation of matter, but in the evident general handling, packing, packages, etc.

The U. S. Government Department of Agriculture exhibit a pre-cooling plant—in a refrigerator car—for experimental work on fruits, especially. Quite an interesting exhibit.

Libby, McNeill & Libby have a refrigerator car on the track, No. 1600, advertising their endless line of food products of every description.

A steamheated refrigerating car attracted much attention, as also did a specially ventilated refrigerator car.

Some extremely interesting examples of pipe bending were exhibited.

A polar bear and Eskimo with spear made of butter attracted much attention.

The Natural Ice Association of America had cosy headquarters at the Exposition. Secretary Cole is sure some welcomer!

Chicago Great Western refrigerator car No. 30344 was exhibited, showing the Moore system of ventilator-heater-refrigerator equipment. Very interesting.

The Standard Oil Company's oil farm, with full equipment of working models, was an attractive and instructive exhibit.

PACKERS ENTERTAIN THE CONGRESS.

Delegates to the World's Refrigeration Congress were entertained at the Stock Yards and Chicago's Packingtown on Saturday, September 20. Between 300 and 400 delegates took in "Stock Yards Day," which began with a trip to the Yards in a special train under the chaperonage of Chairman Arthur D. White of Swift & Company and his committeemen. The visitors spent the entire forenoon in a tour of the packing plants. Most of them had never seen a modern American packinghouse before, and their expressions of wonder and admiration in many different languages were continuous.

At noon a luncheon which partook of the elaborate character of a daytime banquet was served at the Stock Yards Inn. Secretary George L. McCarthy, of the American Meat Packers' Association, presided, with President-General Andre Lebon, of the World's Congress on his right and Chairman White on his left. Secretary McCarthy welcomed the visitors and told them something of the size and extent of the packinghouse industry in this country, shown by the Federal Census to be the greatest manufacturing industry in the country in volume of production. He said few people anywhere realized this fact. And this marvelous growth had been made possible chiefly by the development of refrigeration, as without it many packinghouse operations would be impossible, and we would go back to the days of the country slaughterhouse. His brief talk made a big hit.

Monsieur Lebon replied for the visitors, expressing his delight and wonder at what they had seen. He was impressed with the remarkable development of the packing industry here, and especially with the marvelous cleanliness, order and efficiency which he saw to prevail in our meat plants. He made an impressive tribute to the industry for these reasons especially, and predicted its permanency and continued growth.

After the playing and singing of the various national airs, the assemblage dispersed and special trains took the visitors back to the city. The committee in charge included: Chairman, Arthur D. White, Swift & Company; Walter H. Miller, Edwin B. Merritt, James S. Agar, John Anderson, August W. Broecker, John J. Murphy, A. W. McLaren, C. T. Lee, George D. Taylor, E. Fitzgerald, William Laughlin, W. L. Parkins, H. Tewes, John Haegele, Thomas Keeley.

"BOSS" POETRY, 1913 EDITION.

It would not be a Packers' Convention without either Charley (Boss) Schmidt of Cincinnati or his poetry. This year the Big Boss could not come, but he sent his son, Charles, Jr. And since the Association's veteran versifier had to be absent he forwarded his annual effusion, to be read in his absence. It plays on the names of men prominent at this meeting as follows:

The Meat Packers' Association
Shows religious inclination,
Has now a Bischoff at its head;
Of him and us it may be said:
Saved we are until the last,
For we are "U. S. Inspd. & Passed."

Charley Ogden, Pittsburgh star,
And Charley Roth, a team they are
Of officers that can't be beat;
Who with McCarthy did succeed,
By much hard work and close attention
In having another big convention.

This year's session's in September
So we may all attend as members
The World's Refrigeration Meet
Which is for us a splendid treat;
Experts there are from everywhere,
Such a chance is very rare.

The Cincinnati bunch again
Are going on a special train,
In their usual lively style,
Always ready for a "smile";
Each one will show upon his face
That Cincinnati is THE PLACE!

PRACTICAL POINTS FOR THE TRADE

[EDITOR'S NOTE.—Nothing but actual, bona fide inquiries are answered on this page of "Practical Points for the Trade." The National Provisioner uses no "made-up" queries, with answers taken out of old, out-of-date books. The effort is made to take up and investigate each question as it comes in, and to answer it as thoroughly as time and space will permit, with a view to the special need of that particular inquirer. It must be remembered that the answering of these questions takes time, and that the space is necessarily limited, and inquirers must not grow impatient if the publication of answers is delayed somewhat. It should also be remembered that packing-house practice is constantly changing and improving, and that experts seldom agree, so that there is always room for honest difference of opinion. Readers are invited to criticize what appears here, as well as to ask questions.]

HANDLING HIDES AT PACKINGHOUSE.

An Eastern slaughterer writes as follows:
Editor The National Provisioner:

How should hides be handled to the best advantage from the time they are dropped on the killing floor? What are the methods of inspection, and how are tares determined?

As soon as the hides are dropped off the cattle they should be taken at once to the hide cellar and spread on the floor, avoiding contact with water as much as possible. As they are spread the dew-claws should be removed and the ears split, so they may lay flat in the pack.

The hides are then inspected and assigned to the various selections. They are placed in the pack with the flesh side up, and sprinkled liberally with number two grade of rock salt, about 30 pounds to the hide.

Hides should be kept in a dry cellar and in a uniform temperature of about 50 degs. Fahr. If carried in this manner they can be safely shipped in fifteen to thirty days. As a rule, however, buyers prefer them in pack a full thirty days for several reasons, the principal one being that the hides come out dryer in thirty days than in fifteen.

When the hides are ready to ship the buyer's inspector examines each hide as it is hauled off the pile, and the salt is knocked off the flesh side over a "horse." The flesh side is examined for cuts and scores and the hair side for brands. The flesh side is swept as free of salt as possible with a stiff broom. The hide is then folded and tied with hide rope, and is then ready for shipment.

To ascertain the percentage of grubby hides, twenty hides are taken, opened up and inspected carefully for grubs, and the percentage of these twenty hides is taken as the percentage of grubby hides per carload. If one hide is found grubby in the twenty, that means 5 per cent. of the car lot. The cut and

scored hides are bundled with the flesh side out; the others with the flesh side in. This is to easily separate the number 1 and the number 2 hides when loading, and thus to avoid argument. The selections are weighed up separately.

Manure hides are usually found in the spring, coming off of stall-fed cattle. The weight of such manure is usually settled upon between the inspector and the cellar boss, taking enough hides to satisfy themselves as to the allowance to be made.

The tare is also agreed upon between the inspector and the cellar boss, and is determined from the freeness of moisture in the hides. If they cannot agree, they take ten hides, weigh and sweep them with a stiff broom, then re-weigh and arrive at the tare. In the event of the inspector not being satisfied with the first sweeping, he can demand a sweeping of a second lot, and the cellar man in turn has the privilege of making a third sweep.

Undissolved salt may be washed, mixed with fresh salt, half and half, and used over again. Packs should never exceed 4½ feet high, 4 feet being the most desirable maximum height, for obvious reasons. There will be less shrinkage if hides are salted while warm. Be careful to cover every part of the hide liberally with salt.

RENDERING TANK FITTINGS.

A Western renderer writes:

Editor The National Provisioner:

Can you tell me what is the proper way to fit up pressure tanks for rendering so as to get the best results and have the least trouble?

Pressure tanks for rendering should be fitted with a 15 or 20-inch dump valve and a slush cock, this latter about one-third of the way down the cone from the plate on the tank proper. Over the slush-cock hole in the cone should be a cup on the inside of the tank about 18 inches in diameter and 6 inches deep, perforated with ¼-inch holes, to prevent the tank contents from choking the cock when running off water. About one-third of the way up from the bottom of the tank, where the cone commences, should be a 2-inch lard cock, and about one foot higher a similar cock.

The top of the tank should be fitted with a tight man-head and leaden gasket, and fitted so that it can be safely clamped to re-

sist any pressure used on the tank; one 2-inch blow-off pipe and valve; 1-inch gas pipe and valve, connected with a 2-inch pipe above the valve; one 2-inch safety valve, and one ½-inch pet cock. This pet cock should be fitted in one-third of the way up the head cone from the tank proper.

There should also be an equalizing valve and a relief safety valve on steam header feeding tanks. This relief safety valve is more reliable than a safety valve on tanks, as the safety valves have a tendency toward choking up, and thus are rendered unreliable. The tank should be fitted with two steam pipes, 1½ inch, and one 1¼-inch water pipe connected with the steam pipe, entering at the lowest possible point in the tank, with check valves.

All fittings about a pressure tank must be reliable; that is, the dump valve should be so it can be closed absolutely tight; and also the man-head, the valves and cocks must be in good working order and kept at this point. Pressures must be positively controllable also.

A well-made tank and fittings, properly taken care of, will last much longer than if neglected, and will work much more satisfactorily.

A GOOD LEAN SAUSAGE.

A Berlin style luncheon specialty, stuffed in beef bung casings, is made as follows: Take lean pork trimmings, dry cured, 200 pounds; beef trimmings, dry cured, 100 pounds; pork head or cheek meat, dry cured, 200 pounds. Grind the beef trimmings through a 7/64-inch plate; then chop fine in the meat cutter, adding 5 pounds of water per 100 pounds of meat, to make of the necessary consistency so that the sausage comes out of smoking and cooking on a desirable moisture basis. Grind the pork cheek meat through a 1-inch plate, the pork trimmings being used whole. After the beef trimmings and pork head or cheek meat has been ground, as above explained, put them together with the whole pork trimmings into the mixer for five to ten minutes; then stuff into beef bungs. Smoke four hours, commencing at 120 degs. Fahr. and raising to 160 degs. Fahr.; then cook two and a half to three hours at 160 degs. Fahr.

This is a lean meat sausage, and properly handled is a winner in every particular.



KEEP YOUR EYE ON The Zarembo Patent Evaporator

For TANKWATER and GLUE

Built in all sizes from 100 to 10,000 gallons per hour

We offer, not the excellence of yesterday, but the excellence of today

THE WISE PACKER investigates and buys from
ZAREMBA COMPANY **Buffalo, N. Y.**

(New York Office, 708 Singer Annex)

**THE
NATIONAL PROVISIONER**
New York and
Chicago
Official Organ American Meat Packers'
Association.

Published by
The Food Trade Publishing Co.
(Incorporated Under the Laws of the State of New
York)

at No. 116 Nassau St., New York City.
GEORGE L. MCCARTHY, *President.*
HUBERT CILLIS, *Vice-President.*
JULIUS A. MAY, *Treasurer.*
OTTO V. SCHRECK, *Secretary.*
PAUL I. ALDRICH, *Editor.*

GENERAL OFFICES

No. 116 Nassau St. (Morton Building), New York,
N. Y.

Cable Address: "Sampan, New York."
Telephone, No. 5477 Beckman.

WESTERN OFFICES

Chicago, Ill., 906 Postal Telegraph Building.
Telephone, Harrison 1553.

Correspondence on all subjects of practical interest to our readers is cordially invited.

Money due THE NATIONAL PROVISIONER should be paid direct to the General Office.

Subscribers should notify us by letter before their subscriptions expire as to whether they wish to continue for another year, as we cannot recognize any notice to discontinue except by letter.

**TERMS OF SUBSCRIPTION INVARIABLY IN
ADVANCE, POSTAGE PREPAID.**

United States	\$3.00
Canada	4.00
All Foreign Countries in the Postal Union, per year (21 m.) (26 fr.)	5.00
Single or Extra Copies, each .....	.10

THE SMALL PACKER'S FUTURE

The future of those who are engaged in the packinghouse business today, and especially those conducting a comparatively small business, depends upon the closest attention to details. Income and outgo will have to be watched with the closest scrutiny if the present smaller concerns are to survive. The day is past when reasonable and even large profits could be made out of a business conducted in a comparatively careless way.

With an enormous supply of raw material and a steady and growing demand for products, the history of the meat packing business in this country shows that it was not an extremely difficult matter to succeed, though it was necessary to put in a lot of hard manual labor and long hours. These conditions have completely changed, and with the shortage of livestock, high prices for raw material, added labor costs, legislative regulations and many other requirements, the margin of profit for a small packinghouse is very close to the vanishing point.

The remedy is apparent. The big packers have shown the way for the utilization of practically everything that goes through their plants to the best possible advantage. They have not hesitated to make experiments at great cost, nor to throw out antiquated machines and methods for newer ones, nor to finance installations on a large scale which have brought corresponding profit. They, together with many other very large industrial concerns, have established studies in efficiency and other tests on various operations, machines and methods, which have shown surprising results in dollars and cents.

There is probably not a small packing concern in the country which could not do likewise on a smaller scale and with considerable profit. Wasteful and useless operations can be eliminated, methods of distribution can be improved, everything about the plant can be studied to advantage, and in most cases changes can be made which will be profitable.

There are many machines and appliances upon the market for the utilization of by-products in small houses. They are usually sold by concerns which are expert in their operation, and who can easily teach their customers how to run them. In modern packinghouse practice they fit in naturally with the existing order of things, and add very much to the profit of the business. This should be investigated and fully studied by smaller packers, if they are to continue in business.

The day of profit on any large scale in the meat business will never be seen again. The profit will have to come out of the by-products, and the fight for existence will be that of "the survival of the fittest." It is the business of every small packer to get his house in order, and to take advantage of every opportunity to keep his balance on the right side of the ledger.

◆

COTTON OIL EXPORT METHODS

One of the commonest faults of American exporters is their disinclination to study the needs and tastes of their foreign customers or prospective customers. This fault is an attribute of the American character, no doubt, due to the American's belief in his own infallible judgment. But it is a fault which all students of the export question have seen at once, and have emphasized most earnestly in all their advice to the American trade. It is confined to no one industry, and to no one section of the export trade. It is universal, and it has done and is doing immeasurable damage to our export trade, and to the name and fame of American manufactures and American products in almost all the markets of the world.

The cottonseed products industry is not exempt from criticism in this regard. Speakers at trade conventions, special government agents sent abroad, men of the trade themselves when making foreign tours, all have urged reform in this particular. They have seen and realized the danger to the trade through careless or pig-headed export methods, and they have done their best to warn the trade of the penalties of such practice.

In our considerable and lucrative cottonseed meal and cake export traffic with Europe this has been a marked handicap. It is true the steamship companies have been much to blame in this instance, but it is the business of the exporters and the trade as a whole to bring such pressure to bear upon the offenders as will cause them to reform. It is not necessary at this time to quote statistics showing loss of export trade in cottonseed products, or to comment on the causes of such loss. The trade realizes the state of the case.

A recent instance of warning in this particular is in the report of our Consul General Ravndal at Constantinople concerning the introduction of Russian cottonseed oil into Turkish markets, where American cottonseed oil has always enjoyed the highest reputation, and where it has been in the greatest demand because of the Mohammedan ban on all animal oils. According to Mr. Ravndal, Russian oil has only entered the Turkish market to any extent within the present year, and its quality at present is so unattractive that it would meet with little sale were it not so difficult to get American oil.

"One merchant," says the Consul General, "after vainly trying to secure American connections for the supply of this product, has taken up the Russian oil to meet his needs." And he adds that "others expressed themselves as dissatisfied with the quality, odor, etc., of the Russian oil." American oil has such a high reputation that it readily brings a premium over the Russian oil, and yet the Russian oil is gradually filling the market because of American failure to grasp the opportunity. American shipping and trade methods are criticised in this report, and reasons given for the situation being as it is.

This is only an instance. Of course, cottonseed oil lately has brought such a price at home that an export outlet was not so attractive as formerly. And yet the export trade cannot be ignored. Our connections with certain foreign markets may be satisfactory at present, but the day may come when American exporters or manufacturers might be glad of a reputation and a market developed elsewhere. This applies to other lines of trade than cottonseed products, and is related to the general commercial welfare of the country.

TRADE GLEANINGS

The Houston Guano Company will rebuild its burned plant at Dothan, Ala.

Hendry Brothers have purchased five acres at Tampa, Fla., on which they will erect a modern abattoir.

The Texas Refining Company, Greenville, Tex., will establish a lard refinery and soap factory at El Paso.

The St. Louis Hide and Tallow Company, St. Louis, Mo., will erect a warehouse two stories high and cost \$8,000.

The recently incorporated Caldwell Cotton Oil Company, Vicksburg, Miss., will not erect mills this season, so it is stated.

The large new seed house which the Mebane Cotton Seed Company has been building at Lockhart, Tex., has been completed.

The fertilizer plant of the Independent Packing Company at Chicago, Ill., has been destroyed by fire. The loss is \$75,000.

J. D. Brooks, F. Haysen and W. P. Marcus have incorporated the Deeson Oil Mills, Deeson, Miss., with a capital stock of \$75,000.

The Arkansas Packing Company, Pine Bluff, Ark., will expend \$45,000 in the installation of new machinery in its packing plant.

There has been a formal protest made by property owners to the new abattoir which J. R. Shimer Meat Company proposes to erect at Phillipsburg, N. J.

The International Beef Company, Newark, N. J., has been incorporated with a capital stock of \$100,000, by B. F. Greenbaum, C. Sanger and S. Steels.

The Acme Cotton Oil Company, Louisville, Ky., is being organized as successor to the old Victor Cotton Oil Company. The new company will be capitalized at \$200,000.

ARGENTINE BEEF IN NEW YORK.

There have been differing opinions as to the result of the experimental shipment of a cargo of beef from Argentina direct to New York, which landed last week. Miles Pasman, who is the Argentine delegate to the World's Refrigeration Congress at Chicago, is quoted this week as stating that the shipment was not a success on account of the condition of the meat on arrival. Shippers and consignees, on the other hand, state that it was in good shape and sold well.

Newspapers which have been "boosting" the import idea, and predicting success for it, in order to justify their reputation as prophets have naturally made glowing statements concerning the matter. The following from the Journal of Commerce is a sample:

Improved System of Rendering.
4 Machines in 1.
More Profits—Less Expense.
Ask for Catalog A. Cost Low.

THE LIESINGER COMPANY, Inc.
Buffalo, N. Y.

It was learned upon inquiry that the meat shipment direct from Argentina, which arrived here at the beginning of the week, was easily and quickly disposed of in local and nearby markets, Philadelphia especially taking a considerable portion. Independent dealers who had taken the initiative in the introduction of the meat, expressed themselves as being satisfied with the result and The chief packing establishments, also, either directly or indirectly obtained some of the beef, the Atlantic Hotel Supply Company and the Metropolitan Supply Company being mentioned as purchasers.

In quality, it was said, the beef was all that could be desired, and the importers are carrying on negotiations for continuous shipments which are expected to bound up in quantity immediately on the new tariff going into effect.

It is stated that there is a cargo of 5,000 quarters of beef now on the way from Buenos Ayres to New York, sent by the River Plate Fresh Meat Company, one of the chief rivals of the American beef trust companies that have established plants in Argentina and other South American countries. This quantity means 1,250 carcasses, which at an average of 700 pounds, makes a cargo of 875,000 pounds.

AUGUST OLEOMARGARINE OUTPUT.

Official government reports of oleomargarine production for the month of August, as shown by revenue stamp sales, show an output nearly half a million pounds greater than in August a year ago. This is near the low-water-mark period of the year in oleomargarine output, and the figures indicate the permanent increase in consumptive demand for this product. The August production totaled 9,210,708 lbs., of which 283,180 lbs. was colored and 8,927,528 uncolored. In August a year ago the output was 8,796,247 lbs.

Official government figures, based on stamp sales, showing oleomargarine production in the United States for the past year, are as follows:

1912.	Pounds.
August	8,796,247
September	9,943,296
October	13,994,017
November	13,112,610
December	15,156,553
January, 1913	13,895,624
February	13,555,684
March	13,652,671
April	14,238,134
May	11,595,865
June	8,197,874
July	7,945,414
August	9,210,708

AUGUST MEAT EXPORTS.

Meat export totals for August, as shown by official government reports, show an increase over the same months a year ago. Totals for the year to date also show an increase over 1912. In both cases the increases

are shown to be in hog meats and hog fats. Beef exports continue to fall off and approach near to the vanishing point, while beef fat exports also show a decline.

A synopsis of the official figures, compared to a year ago, is as follows:

	1912.	August 1913.
Cattle, head	1,225	458
Cattle, value	\$120,974	\$22,015
Beef, fresh, lbs.	678,993	567,636
Beef, fresh, value	\$84,845	\$64,457
Beef, pickled, etc., lbs.	2,410,997	2,233,668
Beef, pickled, etc., value	\$203,942	\$210,944
Bacon, lbs.	15,258,958	19,482,918
Bacon, value	\$2,267,528	\$2,585,466
Hams and shoulders, lbs.	14,340,508	15,187,370
Hams and shoulders, value	\$1,859,402	\$2,234,658
Pork, pickled, etc., lbs.	4,096,902	4,027,499
Pork, pickled, etc., value	\$454,294	\$445,565
Lard, lbs.	31,008,003	39,994,663
Lard, value	\$3,379,200	\$4,621,702
Tallow, lbs.	2,832,104	2,393,087
Tallow, value	\$170,579	\$159,153
Oleo oil, lbs.	8,357,118	7,449,238
Oleo oil, value	\$948,585	\$831,912
Neutral lard, lbs.	4,481,170	2,156,587
Neutral lard, value	\$503,550	\$256,454
Total cattle, hogs, sheep, value	\$149,709	\$51,413
Total meat and dairy products, value	\$10,080,862	\$11,889,452

	8 mos. ending August 1912.	1913.
Cattle, head	31,593	9,107
Cattle, value	\$2,966,534	\$196,593
Beef, fresh, lbs.	6,740,168	4,725,345
Beef, fresh, value	\$753,929	\$549,592
Beef, pickled, etc., lbs.	19,513,650	17,143,448
Beef, pickled, etc., value	\$1,571,083	\$1,719,808
Bacon, lbs.	130,431,949	139,166,710
Bacon, value	\$15,701,638	\$18,195,561
Hams and shoulders, lbs.	131,270,833	117,424,113
Hams and shoulders, value	\$16,127,235	\$16,405,403
Pork, pickled, etc., lbs.	29,838,700	28,120,169
Pork, pickled, etc., value	\$2,877,568	\$3,010,516
Lard, lbs.	319,565,357	343,200,372
Lard, value	\$32,359,894	\$38,800,391
Tallow, lbs.	21,016,196	21,536,333
Tallow, value	\$1,295,294	\$1,390,072
Oleo oil, lbs.	75,102,434	72,288,051
Oleo oil, value	\$8,578,296	\$8,207,164
Neutral lard, lbs.	44,009,031	30,858,666
Neutral lard, value	\$4,820,624	\$3,529,495
Total cattle, hogs and sheep, value	\$3,351,330	\$573,908
Total meat and dairy products, value	\$86,141,998	\$93,504,048

IMPORTS INTO SWEDEN.

The import into Sweden of certain vegetable oils, including cotton and corn oil, in 1911 was as follows:

Kinds.	Pounds.	Value.
Cocoanut oil	21,137,927	\$2,004,276
Cottonseed oil	5,102,350	310,128
Corn oil	6,586,723	416,364
Sesame (gingili) oil	3,726,675	407,723
Arachide (peanut) oil	3,033,189	294,978
Palm oil	2,190,158	149,095
Linseed oil	1,244,119	117,966
Olive oil	841,211	86,921
Rapeseed and turnip-seed oil	133,401	8,433
Vegetable tallow	119,572	10,175
Hempseed oil	11,819	1,365
Other	8,891,228	1,621,264
Edible oils in other containers than barrels:		
Olive oil	109,931	12,027
Castor oil	104,949	7,655
Cocoanut oil (refined)	8,241	801
Other	73,738	12,997

PACKERS who buy our SPECIAL HAM PAPER for smoked meat wrapping and Lard Liners, get the GREATEST VALUE the market offers.

WRITE US FOR PLAIN OR PRINTED SAMPLES

Hartford City Paper Company - Hartford City, Indiana

THE ORIGINAL AND WELL KNOWN

WANNENWETSCH SYSTEM

SANITARY RENDERING AND DRYING APPARATUS

Manufactured by **C. H. A. WANNENWETSCH & CO., BUFFALO, N. Y., U. S. A.** Write for Catalogue

AMONG THOSE PRESENT.

(Continued from page 122.)

- E. A. Strauss, Cudahy Packing Co., Chicago, Ill.
 A. A. Davidson, The Davidson Com. Co., Chicago, Ill.
 F. R. Huntington, N. Y. Butchers' Dressed Meat Co., New York, N. Y.
 M. Goldberg, Wolf, Sayer & Heller, Chicago, Ill.
 Antone Stolle, Antone Stolle & Sons, Richmond, Ind.
 W. J. Russell, Jr., Swift & Co., Chicago, Ill.
 S. E. Dunham, Davidson Com. Co., Chicago, Ill.
 E. J. Madden, Halstead & Co., Jersey City, N. J.
 J. Goldberg, Wolf, Sayer & Heller, Chicago, Ill.
 P. L. Nicolas, Fowler Can Co., Ltd., Windsor, Canada.
 E. Biechel, Wolf, Sayer & Heller, Chicago, Ill.
 W. Mojeska, Wolf, Sayer & Heller, Chicago, Ill.
 H. R. Chaplain, Armour & Co., Chicago, Ill.
 G. L. Lauth, Heil Packing Co., St. Louis, Mo.
 A. T. Lowry, No. Am. Provision Co., Chicago, Ill.
 J. B. Peirce, Fred K. Higbie Co., Chicago, Ill.
 W. A. Patterson, Anglo-American Provision Co., Chicago, Ill.
 Chas. E. Herrick, Brennan Packing Co., Chicago, Ill.
 G. S. Robertson, Swift & Co., Chicago, Ill.
 A. B. Hayes, Washington, D. C.
 A. F. Borchardt, Cudahy Packing Co., Chicago, Ill.
 C. P. Monahan, Fowler Can Co., Ltd., Windsor, Ont.
 B. G. Brennan, Brennan Packing Co., Chicago, Ill.
 H. F. Wilkins, Cudahy Packing Co., Chicago, Ill.
 V. H. Munnecke, Armour & Co., Chicago, Ill.
 W. B. Cassell, W. B. Cassell, Baltimore, Md.
 L. G. Corkran, Corkran, Hill & Co., Baltimore, Md.
 F. B. Penney, Brennan Packing Co., Chicago, Ill.
 J. R. Williamson, Chicago, Ill.
 John J. Felin, J. J. Felin Co., Philadelphia, Pa.
 J. A. Greenlee, Fred K. Higbie Co., Chicago, Ill.
 G. Marples, Cudahy Packing Co., Chicago, Ill.
 H. A. Russell, Armour & Co., Chicago, Ill.
 John Moran, Chicago, Ill.
 J. W. Smithson, North American Provision Co., Chicago, Ill.
 J. A. McNaughton, Cudahy Packing Co., Chicago, Ill.
 Will C. Davis, Chicago, Ill.
 W. J. Croke, American Cooperage Co., Anamosa, Ia.
 J. W. S. Reid, N. Y. Butchers' Dressed Meat Co., New York.
 R. G. Oberndorf, Adler & Oberndorf, Chicago, Ill.
 M. Baer, Adler & Oberndorf, Chicago, Ill.
 A. F. Pfeiffer, N. Y. Butchers' Dressed Meat Co., New York.
 Clifford L. Niles, American Cooperage Co., Anamosa, Iowa.
 A. W. Ruf, Cudahy Packing Co., Chicago, Ill.
 Geo. E. Croke, Armour & Co., Chicago, Ill.
 Chas. J. Meakin, Roth Packing Co., Cincinnati, O.
 W. F. Scheck, Chicago, Ill.
 Theo. Kirchheimer, Theo. Kirchheimer Co., Chicago, Ill.
 J. E. Wagner, Cudahy Packing Co., Chicago, Ill.
 L. L. Whelan, Hammond Co., St. Joseph, Mo.
 Milton J. Williams, Williams Pat. Crusher Co., Chicago, Ill.
 F. E. Bechstein, Bechstein & Co., Chicago, Ill.
 J. R. Hills, Chicago, Ill.
 S. Strauss, Independent Butchers' Supply Co., Chicago, Ill.
 Julius Stifter, Independent Butchers' Supply Co., Chicago, Ill.
 J. H. Robertson, Cudahy Packing Co., Chicago, Ill.
 H. W. Waddell, Hammond Co., St. Joseph, Mo.
 Jos. Conron, Conron Bros. Co., New York, N. Y.
 Gottfried Stohrer, Independent Butchers' Supply Co., Chicago, Ill.
 R. C. Johnson, Cudahy Packing Co., Chicago, Ill.
 C. S. Beall, Bechstein & Co., Chicago, Ill.
 W. J. Horst, Chicago, Ill.
 W. A. Sulzberger, Morris & Co., Chicago, Ill.
 F. M. Stephens, Anglo-American Provision Co., Chicago, Ill.
 L. Fred Weber, J. S. Hoffman Co., Chicago, Ill.
 J. P. Gibbons, Cudahy Packing Co., Chicago, Ill.
 C. F. Stephenson, Swift & Co., Chicago, Ill.
 F. E. Ryner, Cudahy Packing Co., Chicago, Ill.
 F. J. Reynolds, Armour & Co., Chicago, Ill.
 H. C. Halinza, Fred K. Higbie Co., Chicago, Ill.
 F. R. Burrows, G. H. Hammond Co., Chicago, Ill.
 R. A. Rightmire, N. Y. Butchers' Dressed Meat Co., New York, N. Y.
 Harry A. Harnden, reporter, Chicago, Ill.
 D. E. Hostetter, Cudahy Packing Co., Chicago, Ill.
 A. G. Glick, Brittan & Co., Marshalltown, Iowa.
 R. A. Stearns, Swift & Co., Chicago, Ill.
 E. W. LaTourette, Conron Bros. Co., New York, N. Y.
 J. I. Bell, Brittan & Co., Marshalltown, Iowa.
 H. C. F. Zeiss, Boyd-Lunham Co., Chicago, Ill.
 O. A. Howell, Cudahy Packing Co., Chicago, Ill.
 Kenneth Boyd, Boyd-Lunham Co., Chicago, Ill.
 J. P. Loye, F. A. Hart & Co., Chicago, Ill.
 Martin H. Foss, Darling & Co., Chicago, Ill.
 H. C. Stanton, Chicago, Ill.
 G. A. Shenkel, National Car Lines, Chicago, Ill.
 T. Longbaugh, North American Provision Co., Chicago, Ill.
 Chas. A. Kerber, Kerber Packing Co., Elgin, Ill.
 C. C. L. Wilson, Ingersoll Packing Co., Ingersoll, Canada.
 Walter R. Kirk, Chicago, Ill.
 W. Dressing, Cudahy Packing Co., Chicago, Ill.
 J. J. Lynch, German-American Provision Co., Chicago, Ill.
 H. J. Porges, B. Heller & Co., Chicago, Ill.
 E. D. Baldwin, Libby, McNeill & Libby, Chicago, Ill.
 Wm. Modjeska, Wolf, Sayer & Heller, Chicago, Ill.
 Mr. Kelly, Morris & Co., Chicago, Ill.
 G. W. Ward, Darling & Co., Chicago, Ill.
 C. W. Jack, Chicago, Ill.
 Simon Cohn, Chas. Friend & Co., Inc., Chicago, Ill.
 Lee Wilson, Harvey Co., Chicago, Ill.
 John Roberts, Roberts & Oake, Chicago, Ill.
 J. H. Dixon, Cudahy Packing Co., Chicago, Ill.
 L. T. Hawkins, Hawkins & Wittington, Providence, R. I.
 Wm. H. Knehan, Packers' Architectural & Engineering Co., Chicago, Ill.
 B. Heller, B. Heller & Co., Chicago, Ill.
 E. A. Cudahy, Cudahy Packing Co., Chicago, Ill.
 R. Barry, National Box Co., Chicago, Ill.
 H. P. Jones, N. Y. Butchers' Dressed Meat Co., New York, N. Y.
 L. H. Schmauss, Schmauss Co., Rockford, Ill.
 Jonas L. Pfaelzer, Louis Pfaelzer & Sons, Chicago, Ill.
 W. B. Ferretty, National Box Co., Chicago, Ill.
 G. R. Cain, Chicago, Ill.
 Sig Adler, Adler & Oberndorf, Chicago, Ill.
 W. R. English, Cudahy Packing Co., Chicago, Ill.
 Fred T. Murphy, American Meat Packers' Supply Co., Chicago, Ill.
 H. A. Walker, Hammond Co., St. Joseph, Mo.
 S. J. Roberts, Roberts & Oake, Chicago, Ill.
 H. G. Newhall, Hatley Bros., Chicago, Ill.
 Edw. Del Strother, Wm. Hazard Co., Chicago, Ill.
 W. C. Butler, Darling & Co., Chicago, Ill.
 R. A. Hale, Darling & Co., Chicago, Ill.
 Archer C. Sinclair, T. M. Sinclair & Co., Ltd., Cedar Rapids, Iowa.
 Jacob Moyer, Morris & Co., Chicago, Ill.
 C. L. Teissler, Ashland Cold Storage Co., Chicago, Ill.
 L. W. Lester, Chicago, Ill.
 F. G. Baker, Cudahy Packing Co., Chicago, Ill.
 Henry Freund, S. Oppenheimer & Co., Chicago, Ill.
 J. J. Jansen, N. Y. Butchers' Dressed Meat Co., New York, N. Y.
 H. E. Schuknecht, Worcester Salt Co., Chicago, Ill.
 E. W. Bromilow, Continental Can Co., New York-Chicago.
 G. W. Brethauer, Chicago, Ill.
 A. N. Benn, Omaha Packing Co., Chicago, Ill.
 M. Huseman, Anglo-American Packing Co., Chicago, Ill.
 O. J. Hunter, Morris & Co., Chicago, Ill.
 H. H. Kamsler, Armour & Co., Chicago, Ill.
 A. G. Kibler, The S. J. Kibler & Bro. Co., New Washington, O.
 J. P. Peterson, Elliott & Co., Duluth, Minn.
 R. H. Gifford, Chicago, Ill.
 Julius Rendenback, Standard Casing Co., Chicago, Ill.
 J. A. Hax, Standard Casing Co., Chicago, Ill.
 I. Macowsky, Standard Casing Co., Chicago, Ill.
 Geo. Blumenstock, Cleveland, O.
 John Reigler, Brookside Sausage Co., Cleveland, O.
 H. A. Timmins, Morris & Co., Chicago, Ill.
 Morgan Weed, Chicago, Ill.
 J. Theurer, The Theurer-Norton Provision Co., Cleveland, O.
 Geo. Tschappat, broker, Chicago, Ill.
 Dudley W. Lester, D. W. Lester & Co., Chicago, Ill.
 Henry Crossman, Davidson Com. Co., Chicago, Ill.
 Oscar W. Anderson, Worcester Salt Co., Chicago, Ill.
 C. C. Beyer, Beyer Bros., Kendallville, Ind.
 Charles F. Healy, The N. K. Fairbank Co., Chicago, Ill.
 O. G. Miller, Chicago, Ill.
 S. Lask, speaker of evening.
 John C. Dahmke, Dahmke Packing Co., Chicago, Ill.
 J. W. Paton, Morris & Co., E. St. Louis, Ill.
 R. L. Scoles, Schwarz & Co., Chicago, Ill.
 D. I. Davis, D. I. Davis & Co., Chicago, Ill.
 J. H. Berg, Berth Levi & Co., Chicago, Ill.
 Hugh Shiells, Hugh Shiells, Boston, Mass.
 C. L. Whittmore, Herf & Frerichs Chemical Co., St. Louis, Mo.
 H. D. Stanton, Morris & Co., Chicago, Ill.
 Sam Farquhar, Chicago, Ill.
 W. B. Lane, North American Provision Co., Chicago, Ill.
 Albert Johnson, Herf & Frerichs Chemical Co., St. Louis, Mo.
 Geo. J. Sayer, Wolf, Sayer & Heller, Chicago, Ill.
 A. B. Stratton, Anglo-American Provision Co., Chicago, Ill.
 J. F. Havens, Hair Drying & Cleaning Process Co., Chicago, Ill.
 A. B. Gest, Urbana Packing Co., Urbana, O.
 C. B. Davis, Chicago, Ill.
 Simon Lorch, Louis Pfaelzer & Sons, Chicago, Ill.

(Continued on page 140.)

ICE AND REFRIGERATION

NEW CORPORATIONS.

Arlington, Tex.—E. F. Sewell, D. H. Lester and C. C. Waller have incorporated the Midway Creamery Company, with a capital stock of \$10,000.

Wenatchee, Wash.—The Wenatchee Refrigeration and Packing Company has filed articles of incorporation. The capital stock is \$500,000 and the incorporators are C. W. Stelzreid, H. I. Knox and M. Morgan.

ICE NOTES.

Seguin, Tex.—The Hamilton Townsite Company will install an ice plant.

Texarkana, Tex.—An ice plant is to be established here by R. P. Martin.

Laredo, Tex.—The Consumers' Ice and Fuel Company will erect an ice storage house.

Miami, Fla.—Gennetison Brothers Company will erect a cold storage plant, 25 x 125 ft.

Bayou La Batre, Ala.—A. M. Daughdrill is erecting an ice and refrigerating plant here.

Homestead, Fla.—F. J. Powers has applied for a franchise to erect an ice and electric light plant.

Franklin, Tenn.—J. R. Rollins will rebuild his burned ice plant and will include cold storage facilities.

Alice, Tex.—The Alice Progressive Club is promoting the establishment of a co-operation creamery to cost \$3,000.

Greenville, S. C.—A. L. Mills and J. H. Williams are interested in proposed erection of a cold storage plant.

Auburndale, Fla.—E. E. Cline, president of the Board of Trade, states that an ice plant is to be established here.

Somerset, Ky.—The Somerset Ice Company contemplates installing an additional cold storage and refrigerating plant.

Amherstburg, Ont.—A building belonging to the Lake Erie Fish and Ice Company has been destroyed by fire. Loss, \$10,000.

Beeville, Tex.—The Beeville Power and Light Company has been organized to take over the properties of the Beeville Ice and Power Company.

Evansville, Ind.—Plans are under consideration by the Fisher & Heidt Ice Company for completely overhauling its plant and installing new machinery. A 400-ton ice storage will be added to the plant.

FIGURING POWER FOR REFRIGERATING PLANTS.

(Samuel Sydney in "Power.")

Before reasonably accurate simple computations regarding the power required for any given ice-making or refrigerating duty can be made it is essential that a correct basis for determining the amount of heat removal and a fixed unit of refrigerating capacity be known. Concerning the heat removal not only must the sensible and latent heat to be removed from the material involved be known, but also the various amounts of heat leakage.

If it is known that the goods placed in a room for cooling or the liquid placed in a can for freezing are at a certain temperature and must be reduced to another temperature, it is essential to have a correct basic rating: first for the sensible heat of the material; second, for the latent heat, if its state is changed by the cooling, as in freezing water, and third for the quantity of heat that will flow from other near-by bodies to the article being cooled or frozen.

To measure sensible heat there are various temperature-measuring instruments, sufficiently accurate for nearly all purposes, so that this factor may be passed over. All substances also absorb heat at constant temperature when they change their state from solid to liquid or from liquid to gas, and this amount of heat is again made latent when they change back to their original state. To forget to allow for this latent heat might prove a costly error.

Just what is the correct latent heat of the most common and most frequently used substance, water, has not yet been fully determined. When water changes its state from liquid to vapor it is known that about 970 B.t.u. for each pound must be added from and at the temperature of 212 deg. F. before the sensible heat will increase and that when recondensed to water, this vapor will surrender the 970 B.t.u. before its sensible heat falls below 212 deg. F. If frozen water, or ice, is heated its temperature rises readily to 32 deg. F., but it rises no higher on the thermometric scale until about 142 B.t.u. according to some, and 144 B.t.u. according to others, have been added per pound.

While a difference of two heat units per pound would not figure up very much on a small machine, it would amount to considerable in figuring on such a machine as the

1,000-ton compressor installed by the Quincy Market Cold Storage & Warehouse Company, Boston, Mass., in 1912, or the still larger machine, said to be of 1,200 tons daily refrigerating capacity, now being built in Germany for an ice-manufacturing concern in Buenos Aires, Argentine Republic. Either of these machines would be capable of producing at least 500 tons of ice daily or 1,000,000 pounds. A difference of two units per pound, therefore, would mean 2,000,000 B.t.u., which is equivalent to nearly eight tons of refrigerating capacity per day.

Far greater and much more uncertain of calculation is the extra heat that must be removed because of heat leakage. If the exact coefficients of heat leakage for the various types and kinds of wall construction were known there would be little difficulty. As it is we are confronted with a mass of estimates and with results of tests made by interested parties on particular kinds of construction differing in many ways from any that are met with in practical business.

It is learned from private and semi-official tests that for some of the best known types of insulated-wall construction the coefficient is somewhere between 1 and 3 B.t.u. per sq. ft. of surface per 24 hr. per degree difference between outside and inside temperature. And even with this factor it is necessary to rely more or less upon estimate, as the difference between temperatures outside and inside is constantly varying as weather conditions change. With thick walls composed of material that offers comparatively little resistance to the passage of heat or of such faulty construction with the best material that conductors of heat remain in the walls, the coefficient of heat transmission rises to 5 and 6 or even to 10 and 12 units per sq. ft., per 24 hr. per degree difference.

What this means is evident from a simple example. Given a room 30 ft. wide, 80 ft. long and 10 ft. high, there would be 7,000 sq. ft. of surface. At 2 B.t.u. per sq. ft. per 24 hr. with a temperature difference of 30 deg., this would mean a heat gain of

$$7,000 \times 2 \times 30 = 420,000 \text{ B.t.u.}$$

At 10 B.t.u. heat transmission the gain would be

$$7,000 \times 10 \times 30 = 2,100,000 \text{ B.t.u.}$$

The one would mean about 1.4 tons daily refrigerating effect and the other 7.3 tons, merely for taking up heat leakage. Then in addition the heat introduced at openings

ICE HANDLING MACHINERY

FOR

PACKERS

For Natural and Manufactured
ICE PLANTS
Economical—Efficient

Let Us Recommend
the Proper Equipment
for Your Needs

ICE TOOLS

Large Variety
Large Stock

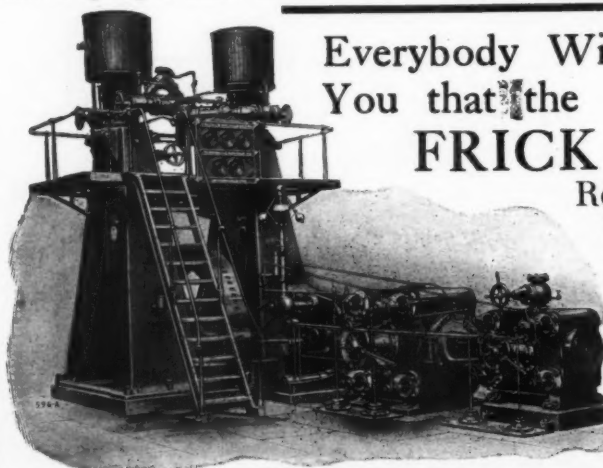
Send for
1913 Catalog

Gifford Wood Co.

HUDSON, N. Y.

Boston, Mass.

Chicago, Ill.



Everybody Will Tell
You that the
FRICK

Refrigerating
Machine is
the best you
can buy—
everything
considered.
Let us get
better ac-
quainted.

Send for our Catalogue on Refrigeration—It may be our Ammonia Fitting Catalogue is what you need. No matter what you require for refrigeration you can get it quick from

FRICK COMPANY :: Waynesboro, Pa.

PURITY IS ESSENTIAL IN AMMONIA

For nothing will reduce the profits of your plant so surely as Ammonia laden with organic impurities.

BOWER BRAND ANHYDROUS AMMONIA

is made from pure Aqua Ammonia of our own production, thoroughly refined and purified. **Send for Free Book**

HENRY BOWER CHEMICAL MANUFACTURING CO., 29th St. and Gray's Ferry Road, Philadelphia, Pa.

B. B. AMMONIA may be obtained from the following:

ATLANTA: Manufacturers' Warehouse Co.
BALTIMORE: Joseph S. Wernig Transfer Co.
BOSTON: 120 Milk St., Chas. F. Duffee.
BUFFALO: Keystone Transfer Co.
CHICAGO: F. C. Schapper, Westerlin & Campbell Co.
CINCINNATI: The Burger Bros. Co.
CLEVELAND: General Cartage & Storage Co., Henry Bollinger.
DETROIT: Riverside Storage & Cartage Co., Newman Bros., Inc.
DALLAS: Oriental Oil Co.
HAYANA: O. B. Cintas.
INDIANAPOLIS: Railroad Transfer Co.
JACKSONVILLE: St. Elmo W. Acosta.
KANSAS CITY: Crutcher Warehouse Co.
LIVERPOOL: Peter R. McQuile & Son.
LOS ANGELES: United Iron Works.
LOUISVILLE: Union Warehouse, 7th and Magnolia Sts.
MILWAUKEE: Central Warehouse.
MEMPHIS: Patterson Transfer Co.
MEXICO, D. F.: Ernst O. Heinsdorf.
NEWARK: Brewers' & Bottlers' Supply Co.
NEW ORLEANS: Chas. F. Rantz.
NEW YORK: Roessler & Hasselacher Chemical Co., Shipley Construction & Supply Co.
NORFOLK: Nottingham & Wrenn Co.
OKLAHOMA CITY: O. K. Transfer & Storage Co.
PITTSBURGH: Pennsylvania Transfer Co.
PROVIDENCE: Rhode Island Warehouse Co.
ROCHESTER: Shipley Construction & Supply Co.
SALT LAKE CITY: Utah Soap Co.
ST. LOUIS: Pillsbury-Becker Engineering & Supply Co.
ST. PAUL: R. B. Whitacre & Co.
SAN ANTONIO: Oriental Oil Co.
SAN FRANCISCO: United Iron Works.
SAVANNAH: Benton Transfer Co.
SPOKANE: United Iron Works.
SEATTLE: United Iron Works.
TOLEDO: Moreton Truck & Storage Co.
WASHINGTON: Littlefield, Alvord & Co.

that are not air tight when closed and that which rushes in at times of entrance and departure from the cold room, the heat radiating from the person who brings in or takes out goods, or inspects the place, and the heat radiating from lights.

All these must also be considered and provided for. It is customary to make an arbitrary allowance to cover all these heat leakages. If the allowance proves too small, occasional losses on goods prove costly, as many have experienced. If the allowance is too large, there is not only the loss on extra investment, but on operation of the larger plant.

In the manufacture of ice it is necessary to take up not only the latent heat per pound of water to be frozen, but also the sensible heat to be removed from the water above, and from the ice below, 32 deg. F., the heat that leaks into the can through the imperfect covers and that which leaks into the freezing tank through its insulation and from the tank surface.

Granted that the total amount of heat to be removed by refrigerating machinery for any given service has been determined closely, uncertainty again creeps in when it is desired to determine definitely just how large a machine will produce the refrigeration required.

Competent operation also enters into the question. It is not an uncommon occurrence to find refrigerating plants operated apparently at the limit of their capacity, but when taken in charge by a competent engineer who makes a few slight and inexpensive changes that the machine does from 10 to 25 per cent. more work and with actually less cost for power.

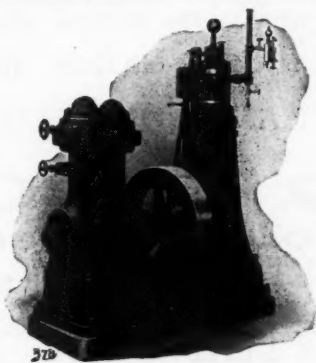
To figure the power required for an ammonia compressor it is necessary to know the temperature of the condenser water and also the quantity of water that can be used on such a condenser per minute. The type of condenser has some bearing on the case. It is necessary to know the temperature to be maintained in the refrigerator and the weight of gas that must be compressed to produce such a temperature.

It is common practice to merely estimate the power required and provide accordingly. Manifestly this is not the most efficient or economical method. The rules for figuring power requirement are for the most part approximate only, as a number of factors, not usually considered, enter in to modify the result. Thus, for example, in the matter of condenser water, if one gallon per minute per ton of refrigeration per 24 hr. of 56-deg. water is used in the condenser, the resulting condenser pressure is about 150 pounds. If three-fourths of a gallon of 56-deg. water is used the pressure will run up to about 190 pounds. If three gallons of such water can be utilized the pressure will be only 105 pounds, and the work of the compressor will be reduced between 20 and 25 per cent.

Dr. Siebel's rule for figuring the power for a compressor may be stated as follows:

(Continued on page 140.)

WATCH PAGE 156 FOR BARGAINS



Experience Counts

The wise Purchaser always considers the **experience** of the manufacturer from whom he buys. Probably in no other line is **experience** of so much importance as in the manufacture of Ice Making and Refrigerating Machinery.

For 16 years we have made nothing else. During this time we have sold 3527 Machines having a total capacity of 118,700 tons of Refrigeration per 24 hours. The experience gained during these years is a valuable asset—shared by all our customers.

From the very start our policy has been to exercise a little more care—to take a little more time—to go to a little more expense—than most manufacturers think necessary.

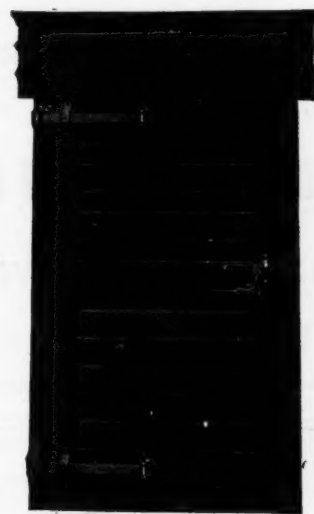
Over 2000 men are now employed in the manufacture and sale and in superintending the erection of York products.

Don't you think a Company, with such a record as this, is entitled to your next order?

Write for Catalog.

York Manufacturing Co.
York, Pa.

Branches in all Principal Cities



This is a Contract

We invite users of

Refrigerator Doors and Windows

who are contemplating erection or remodelling plants to write us for

Sample Door and Frame COMPLETE

We will forward it to size required. If it is not satisfactory from every standpoint to YOU in style, workmanship, efficiency and plan, it is YOUR PROPERTY WITHOUT CHARGE or any obligation to us whatever.

(Signed)

Jones Cold Store Door Co.
HAGERSTOWN, MD., U.S.A.

Direct from Producer to Consumer

TANKAGE BONES CRACKLINGS

As we use the above articles in the manufacture of our finished goods, we are constantly in the market for them at top prices. Having no traveling buyer's salary or expense we pay the highest prices for

TALLOW, GREASE, HIDES, SKINS, HAIR, HOOFS, ETC.

WHAT HAVE YOU TO OFFER?

DARLING & COMPANY

FOUNDED 1881

4250 ASHLAND AVE.

UNION STOCK YARDS, CHICAGO

BUYERS OF EVERYTHING IN THE OFFAL LINE



WE will exhibit at the International Refrigeration Exposition, Chicago, Sept. 17 to Oct. 1. Don't fail to see our exhibit.

**Quality
Uniformity**

**Purity
Reliability**

Consider each and all of these points in judging ammonia. The economy and efficiency of your cooling system are based on the quality of your anhydrous ammonia.

We guarantee the Armour brand to be pure and dry—free from all foreign substances and non-condensable gases.

In the great Armour plants this brand is used exclusively. Use it in *your* plant and be assured of complete satisfaction and the very highest degree of cold-producing power.

Each drum is tested for purity, dryness and volatility. Sold subject to *your* test before using.

Stocks carried at all principal shipping points. Write for information.

The Armour Ammonia Works

Owned and Operated by **ARMOUR & COMPANY**

CHICAGO, ILL.

PROVISIONS AND LARD

WEEKLY REVIEW

All articles under this head are quoted by the barrel, except lard, which is quoted by the hundredweight in tierces, pork and beef by the barrel or tierce and hogs by the hundredweight.

Values Unsettled—Trading Quiet—Hog Movement Liberal—Weights Decreasing—Quality Irregular—Hog Prices Firm.

The hog product market from the recent low levels has made a moderate recovery, pork gaining about 75c. a barrel, and lard and ribs slightly over ¼c. a pound. At this advance the demand let up to some extent, and there was an undertone of uncertainty in the market, and some tendency towards reaction. This reactionary tendency was possibly due to somewhat more liberal hog movement, and some pressure of hogs on the market. The receipts the past week at six leading points were somewhat under the preceding week, but still considerably in excess of last year.

Considerable attention was directed to the falling off in weights. The average weight at Chicago for the past week was 217 pounds, compared with 231 pounds the preceding week, 235 pounds last year, and 219 pounds in 1911. This falling off in the weights was credited to an increased movement of pigs, due to the feed stuffs situation, and also it is claimed, to some apprehension regarding the possible spread of cholera. The breaking of the drought very generally throughout the country has to a certain extent, relieved the anxiety about the feed stuffs situation, and there has not been quite as much anxiety to market hogs as was noticeable before the rains came. The quality of the hogs coming to market has been only fair, and prices have been rather irregular, as a result partly of this condition.

The price for hogs for the past week averaged \$8.30 a hundred, advancing from the average price at the opening of this week. Compared with a year ago the prevailing prices are just about the same, while the price of product shows a general premium compared with last year. The prices for lard, however, are not greatly different from a year ago, the most noticeable changes being in pork. September pork has recently been ruling at about \$5 a barrel higher than last year, and January pork about \$1.50 a barrel over last year.

The distribution of product keeps quite liberal, and the shipments from Western packing centers have been on a good scale, so that the stocks are not expected to show burdensome changes on the first of the month. The export movement has been fair, although the total shipments for the season to date are about 38,000,000 pounds of meats below last year, and about 17,000,000 pounds of lard.

The feeling regarding the immediate future of the market seems to be that the whole situation will depend to a very great degree upon the developments in the movement of hogs, and the question of the healthfulness of the hogs. A great deal of attention has been directed to this question of healthfulness through the government report of the beginning of the month, which showed very low condition, and also on account of private reports claiming a great deal of trouble.

As the government report a year ago did not reflect the serious conditions, which later

were shown in the total losses for the year, the trade is inclined to think that the report this time may simply cover a condition incident at the time, and not a condition which has covered any considerable period. Much depends on this, as the losses might be easily very material, and in view of the heavy losses of a year ago, and the high prices for feed stuffs, the prospect of a repetition of last year's losses from disease are not encouraging.

The advices from the West are that the feeding conditions have improved since the rains, and are about normal now for the time of the year. The rains have been generous all over the livestock and feed stuffs producing sections, and for the fall at least there is no apprehension as to the pasturage supply or the stock water supply.

It is believed, however, that the movement of livestock to market will be fairly liberal during the fall, but there seems to be a sufficient demand for the arrivals to prevent any pressure on the hog market, and there is sufficient demand for product to apparently take up the accumulations on the basis of the current receipts. Some opinions have recently been expressed looking to possibility of a larger movement a little later in the fall, which might have some influence on values, provided there is no increase in the distribution, with the larger supply which might then be available.

On the basis of the current prices for corn, there is still a nominal profit in finishing hogs of about 10c. a bushel in the corn used. As to values for corn during the fall and costs of feeding the opinions are decidedly at variance. The movement of old corn to market is heavy, showing apparently that the country is satisfied with the price. Point is being made by some of the close observers that it will be necessary to consume a large portion of this year's corn and forage supply on the farm, and market it in the shape of livestock in order to get a reasonable value out of it, owing to the belief that the weather conditions made a rather low percentage of merchantable corn, and correspondingly a high percentage of products which must be used at home for feeding purposes.

LARD.—The market continues quiet and about steady. Cost interest is rather limited, and foreign demand has been in moderate volume. City steam, 11c.; Middle West, \$11.20@11.30; Western, \$11.40; refined, Continent, \$11.80; South American, \$12.55; Brazil, kegs, \$13.55; compound lard, 9@9¼c.

PORK.—The supplies here are small, and prices are firmly held. Mess is quoted \$23.50 @24; clear, \$20@21.50; family, \$24.50@26.

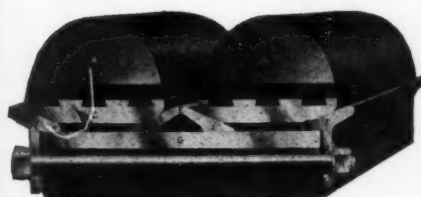
BEEF.—The situation of the market is unchanged. Supplies are light, but the demand is for small lots and prices show no change. Quoted: Family, \$19@20; mess, \$17.75@18.75; packet, \$18@19; extra India mess, \$28@30.

SEE PAGE 147 FOR LATER MARKETS.

United States Tires

are good tires

They cut down tire bills



Can be removed and applied in fifteen minutes time. Guaranteed for 10,000 miles of service (conditional upon this mileage being used within one year's time)

United States Tire Company
New York

EXPORTS OF HOG PRODUCTS.

Exports of hog products from New York reported up to Wednesday, September 24, 1913:

BACON.—Antwerp, Belgium, 99,750 lbs.; Colon, Panama, 4,748 lbs.; Ceara, Brazil, 5,765 lbs.; Christiania, Norway, 90,459 lbs.; Cienfuegos, Cuba, 47,014 lbs.; Genoa, Italy, 216,168 lbs.; Gibraltar, Spain, 19,000 lbs.; Glasgow, Scotland, 116,379 lbs.; Havana, Cuba, 33,815 lbs.; Hull, England, 139,972 lbs.; Hamilton, W. I., 848 lbs.; London, England, 6,085 lbs.; Liverpool, England, 777,590 lbs.; Matanzas, Cuba, 49,297 lbs.; Middlesboro, England, 2,498 lbs.; Newcastle, England, 35,650 lbs.; Neuviatas, Cuba, 2,546 lbs.; Rio Janeiro, Brazil, 9,891 lbs.; St. Johns, N. F., 3,500 lbs.; Santiago, Cuba, 16,174 lbs.; Stockton, England, 5,008 lbs.; Sunderland, England, 18,633 lbs.; Wiborg, Russia, 275,669 lbs.

HAMS.—Antwerp, Belgium, 85,000 lbs.; Bremen, Germany, 1,400 lbs.; Barbados, W. I., 1,892 lbs.; Callao, Peru, 608 lbs.; Colon, Panama, 7,823 lbs.; Cienfuegos, Cuba, 12,911 lbs.; Demerara, British Guiana, 9,819 lbs.; Glasgow, Scotland, 377,600 lbs.; Guadeloupe, W. I., 2,672 lbs.; Hamilton, W. I., 13,803 lbs.; Havana, Cuba, 11,562 lbs.; Hull, England, 219,000 lbs.; Kingston, W. I., 1,951 lbs.; La Guaira, Venezuela, 5,046 lbs.; Liverpool, England, 719,896 lbs.; Leith, Scotland, 2,531 lbs.; Macoris, S. D., 6,237 lbs.; Matanzas, Cuba, 7,077 lbs.; Port au Prince, W. I., 1,150 lbs.; Santiago, Cuba, 17,028 lbs.; Saranilla, Colombia, 1,167 lbs.; St. Thomas, W. I., 1,114 lbs.; Southampton, England, 71,961 lbs.; Surinam, Dutch Guiana, 12,204 lbs.

LARD.—Algoa Bay, Africa, 15,030 lbs.; Antwerp, Belgium, 390,999 lbs.; Bordeaux, France, 169,101 lbs.; Bremen, Germany, 140,250 lbs.; Barbados, W. I., 6,740 lbs.; Cienfuegos, Cuba, 120,194 lbs.; Catania, Sicily, 21,365 lbs.; Colon, Panama, 7,693 lbs.; Callao, Peru, 3,177 lbs.; Ceara, Brazil, 13,075 lbs.; Copenhagen, Denmark, 79,733 lbs.; Christiania, Norway, 105,214 lbs.; Cartagena, Venezuela, 2,511 lbs.; Drontheim, Norway, 13,288 lbs.; Dantz, Germany, 52,000 lbs.; Demerara, British Guiana, 1,822 lbs.; Genoa, Italy, 138,216 lbs.; Glasgow, Scotland, 30,050 lbs.; Gothenberg, Sweden, 56,599 lbs.; Gibraltar, Spain, 16,800 lbs.; Guadeloupe, W. I., 2,900 lbs.; Hamilton, W. I., 2,897 lbs.; Havre, France, 32,575 lbs.; Havana, Cuba, 55,471 lbs.; Hamburg, Germany, 586,217 lbs.; Hull, England, 115,858 lbs.; Iquique, Chile, 2,568 lbs.; Koenigsberg, Germany, 275,698 lbs.; Kingston, W. I., 3,900 lbs.; Leith, Scotland, 35,500 lbs.; Leicester, England, 29,432 lbs.; Liverpool, England, 275,325 lbs.; La Guaira, Venez-

uela, 36,297 lbs.; London, England, 359,835 lbs.; Macoris, S. D., 36,179 lbs.; Matanzas, Cuba, 8,615 lbs.; Malmö, Sweden, 26,250 lbs.; Messina, Sicily, 22,050 lbs.; Neuviatas, Cuba, 9,600 lbs.; Newcastle, England, 64,400 lbs.; Naples, Italy, 22,308 lbs.; Port au Prince, W. I., 40,838 lbs.; Palermo, Sicily, 17,826 lbs.; Puerto Mexico, —, 2,000 lbs.; Rio Janeiro, Brazil, 4,700 lbs.; Rotterdam, Holland, 4,960 lbs.; Savanilla, Colombia, 10,274 lbs.; St. Thomas, W. I., 5,096 lbs.; Santiago, Cuba, 4,600 lbs.; Stettin, Germany, 1,039,000 lbs.; Southampton, England, 114,537 lbs.; Sunderland, England, 6,300 lbs.; Surinam, Dutch Guiana, 1,621 lbs.; Turks Island, W. I., 2,710 lbs.; Teneriffe, Island of, 9,874 lbs.; W. Hartlepool, England, 2,240 lbs.

LARD OIL.—Colon, Panama, 188 gals.

PORK.—Antwerp, Belgium, 25 tes.; Barbados, W. I., 67 bbls.; Christiania, Norway, 100 bbls.; Christiansand, Norway, 25 bbls.; Demerara, British Guiana, 150 kgs.; Glasgow, Scotland, 150 bbls.; Guadeloupe, W. I., 17 bbls.; Hamburg, Germany, 105 bbls.; Hamilton, W. I., 9½ bbls.; Kingston, W. I., 51 bbls.; Liverpool, England, 85 bbls.; Macoris, S. D., 57 bbls.; Port au Prince, W. I., 131 bbls.; St. Thomas, W. I., 15 bbls.; St. Johns, W. I., 327 bbls.; Surinam, Dutch Guiana, 107 bbls.; Turks Island, W. I., 14 bbls.

SAUSAGES.—Antwerp, Belgium, 266 pa.; Barbados, W. I., 142 bbls.; Catania, Sicily, 24 bx.; Colon, Panama, 55 pa.; Havre, France, 140 bx.; Macoris, S. D., 126 pa.; Messina, Sicily, 80 bx.

EXPORTS OF BEEF PRODUCTS.

Exports of beef products from New York reported up to Wednesday, September 24, 1913:

BEEF.—Antwerp, Belgium, 15 bbls.; Bergen, Norway, 25 bbls.; Barbados, W. I., 45 bbls.; Christiania, Norway, 75 bbls.; Cardiff, Wales, 75 tes.; Colon, Panama, 39 bbls.; Christiansand, Norway, 25 bbls.; Demerara, British Guiana, 150 kgs.; Glasgow, Scotland, 80 tes.; Hamilton, W. I., 9 bbls.; Hamburg, Germany, 50 bbls.; Hull, England, 25 bbls.; Halifax, N. S., 30 bbls.; Kingston, W. I., 5 bbls.; Liverpool, England, 85 bbls.; London, England, 35 bbls.; Port au Prince, W. I., 6 tes.; St. Johns, N. F., 587 bbls.; Surinam, Dutch Guiana, 315 bbls.

FRESH MEAT.—Colon, Panama, 83,660 lbs.; Hamilton, W. I., 10,035 lbs.; Liverpool, England, 69,445 lbs.; London, England, 126,391 lbs.

OLEO OIL.—Bergen, Norway, 105 tes.; Bremen, Germany, 60 tes.; Copenhagen, Denmark, 70 tes.; Christiania, Norway, 395 tes.; Drontheim, Norway, 70 tes.; Genoa, Italy, 25 tes.; Glasgow, Scotland, 100 tes.; Hamburg, Germany, 70 tes.; Liverpool, England, 40 tes.; St. Johns, N. F., 100 tes.

OLEOMARGARINE.—Barbados, W. I., 27,050 lbs.; Cartagena, Venezuela, 1,260 lbs.; Colon, Panama, 2,100 lbs.; Callao, Peru, 6,400 lbs.; Demerara, British Guiana, 3,500 lbs.; Hamilton, W. I., 1,660 lbs.; Kingston, W. I., 1,200 lbs.; Macoris, S. D., 3,710 lbs.; Port Limon, C. R., 4,680 lbs.; St. Thomas, W. I., 4,625 lbs.; Surinam, Dutch Guiana, 1,000 lbs.

TALLOW.—Bristol, England, 23,755 lbs.; Ceara, Brazil, 2,880 lbs.; Demerara, British Guiana, 4,033 lbs.; Hamburg, Germany, 63,349 lbs.

TALLOW SCRAP.—London, England, 144,079 lbs.

TALLOW OIL.—Antwerp, Belgium, 100 tes. TONGUE.—Antwerp, Belgium, 16 pa.; Liverpool, England, 100 pa.; London, England, 100 pa.

CANNED MEAT.—Algoa Bay, Africa, 928 pa.; Bremen, Germany, 100 cs.; Delagoa Bay, Africa, 188 pa.; Diral, —, 50 cs.; Glasgow, Scotland, 320 pa.; Hamilton, W. I., 13 pa.; Hull, England, 315 cs.; London, England, 126 pa.; Liverpool, England, 290 cs.; Leith, Scotland, 65 cs.; Macoris, S. D., 15 pa.; Middlesboro, England, 20 cs.; Neuviatas, Cuba, 100 cs.; Stockholm, Sweden, 145 tes.; Stavanger, Norway, 120 tes.; Vera Cruz, Mexico, 86 pa.

EXPORTS OF PROVISIONS

Exports of hog products for the week ending September 20, 1913, with comparative tables:

PORK, BBLs.				
To—	Week ending Sept. 20, 1913.	Week ending Sept. 21, 1912.	From Nov. 1, '12, to Sept. 20, 1913.	
United Kingdom..	250	316	15,253	
Continent	327	245	10,479	
So. & Cen. Am. ..	370	390	18,258	
West Indies	1,657	1,629	51,318	
Br. No. Am. Col. ..	233	814	13,997	
Other countries ..	.....	.....	47	
Total	2,837	3,384	109,352	

MEATS, LBS.				
United Kingdom..	4,771,725	5,054,200	266,238,040	
Continent	890,855	1,294,625	36,338,930	
So. & Cen. Am. ..	138,400	330,000	5,278,525	
West Indies	25,100	238,844	8,931,754	
Br. No. Am. Col. ..	2,000	10,000	117,475	
Other countries ..	.....	.....	2,029,525	
Total	5,628,080	6,897,669	319,934,249	

LARD, LBS.				
United Kingdom..	4,064,170	5,215,100	240,891,946	
Continent	4,562,276	7,263,050	206,484,103	
So. & Cen. Am. ..	235,850	848,650	22,659,607	
West Indies	247,050	844,598	30,068,330	
Br. No. Am. Col. ..	8,065	6,515	721,419	
Other countries ..	.....	1,500	1,563,056	
Total	9,145,411	14,179,413	503,018,461	

RECAPITULATION OF THE WEEK'S EXPORTS.				
	Pork, bbls.	Meats, lbs.	Lard, lbs.	
New York	2,049	2,758,405	3,655,766	
Boston	96	1,263,675	1,746,545	
Philadelphia	52	30,000	.....
Baltimore .....	.....	.....	1,487,100	
New Orleans	640	127,000	329,000	
Montreal .....	.....	1,449,000	1,827,000	
Total week	2,837	5,628,080	9,145,411	
Previous week ..	1,666	5,801,750	7,080,138	
Two weeks ago ..	948	6,493,675	8,481,220	
Cor. week last y'r	3,384	6,897,669	14,179,413	

COMPARATIVE SUMMARY OF EXPORTS.				
	From Nov. 1, '12, to Sept. 20, '13.	Same time last year.	Decrease.	
Pork, lbs.	21,870,400	23,518,000	1,648,200	
Meats, lbs.	319,934,249	356,342,511	36,408,262	
Lard, lbs.	303,018,461	519,839,450	18,820,998	

OCEAN FREIGHTS.

	Liverpool.	Glasgow.	Hamburg.
	Per Ton.	Per Ton.	Per 100 lbs.
Beef, per tierce	20/	22/6	@32c.
Oil Cane	15c.	18c.	@20c.
Bacon	20/	22/6	@32c.
Lard, tierces	20/	22/6	@32c.
Cheese	25/	30/	@50c.
Canned meats	20/	22/6	@32c.
Butter	30/	30/	@50c.
Tallow	20/	22/6	@32c.
Pork, per barrel	20/	22/6	@32c.

EXPORTS SHOWN BY STEAMERS.

Exports of commodities from New York to foreign ports for the week ending Thursday, September 18, 1913, as shown by Williams & Terhune's report, are as follows:

Steamer and Destination.	Oil Cans.	Cottonseed Bbls.	Butter Boxes.	Hams and Pkgs.	Tallow Pkgs.	Beef Pkgs.	Pork Bbls.	Lard Tcs. and Pkgs.
Celtic, Liverpool	4885	.....	1946	.....	87	140	47 1970
Campania, Liverpool	100	.....	455	.....	25	5	250 500
Minnehaha, London	2	.....	5	.....	175	.....	35 2225
New York, Southampton	285	.....	.....	.....	..... 1775
Buffalo, Hull	792	.....	.....	30	1085 2502
Canning, Manchester	700	.....	.....	.....	.....	.....	600 1375
Columbia, Glasgow	810	.....	10	.....	100 550
Grosser Kurfuerst, Bremen 160
Kaiser Wil. der Grosse, Bremen	25	.....	..... 1000
Koenigin Luise, Bremen	10	.....	.....
Rotterdam, Rotterdam	5484	.....	125	.....	25	.....	1357 5300
Kristianiafjord, Baltic	200	.....	25	85	270 75
Michigan, Antwerp	24315	.....	50	.....	.....	.....	52
Zeeland, Antwerp	1380	.....	335	.....	20	84	228 3250
Niagara, Havre	2200	.....	.....	.....	.....	.....	70 350
La Savoie, Havre	175 1549
Cairndon, Havre	3880	.....	.....	.....	.....	.....	.....
Cairndon, Dunkirk	676	.....	.....	.....	.....	.....	.....
Sant' Anna, Marseilles	357	100	3	.....	.....	12	125 335
Calabria, Mediterranean	455	.....	.....	.....	.....
Martha Washington, Mediterranean	50	.....	.....	.....	.....	.....
Hamburg, Mediterranean	85	.....	.....	.....	125
Verona, Mediterranean	390	.....	.....	10	220
Saxonia, Mediterranean	35	.....	.....	.....	25
San Guglielmo, Mediterranean	20	.....	.....	.....	.....	.....	125
Total	38992	272	.....	5921	50	402	356	4404 23411

TALLOW, STEARINE, GREASE and SOAP

WEEKLY REVIEW

TALLOW.—There was a slight expansion in the volume of business during the week. Accompanying this improvement, values rose about $\frac{1}{8}$ c. in the various descriptions. Most of the inquiry and business was confined to the better grades of tallow. There has been a larger production, but to offset this the consuming trade showed greater willingness to accept more stuff. A further increase in the supplies on hand seems likely, and would only be natural at this season of the year, although it is steadfastly maintained that users of tallow are awaiting this increased production to replenish their light holdings. It is generally admitted in the trade that stocks are light, as a result of the conservative attitude that has been in evidence during the past year or so. The London auction sale had a sympathetic influence here. The result was more encouraging to holders of tallow than for several weeks. Of 1,727 casks offered for sale, 1,277 were absorbed at prices from 3d. to 6d. higher. The American trade is not being called upon to supply needs of foreign consumers, however, and bids in the local market continue fractionally out of line. Prime city tallow sold at $6\frac{3}{4}$ c., and city specials at $6\frac{1}{2}$ c. Some of the large interests in the trade are not inclined to look for any decided change in the market at this time.

OLEO STEARINE.—The market is rather quiet, but steadier. During the week there were sales of several cars on the basis of 9c. Compound lard makers were credited with being the principal buyers.

SEE PAGE 147 FOR LATER MARKETS.

OLEO OIL.—The market has ruled steady this week, with only a moderate volume of demand. Foreign markets have shown only moderate business, and trade has been quiet at quoted prices. Extras are quoted at New York at $11\frac{1}{2}$ c., and 66 florins at Rotterdam.

COCOANUT OIL.—The demand for oil is very steady. The absorption abroad is persistent and arrivals are steadily taken care of. The offerings of copra are limited and do not bring any pressure on the market. Cochin, $13\frac{1}{2}$ @ 14 c.; shipment, 12c.; Ceylon, 11 @ $11\frac{1}{2}$ c.; shipment, $10\frac{1}{2}$ @ 11 c.

CORN OIL.—The market is quiet and a little easier, with some willingness shown to meet the market. Importation of important amounts of Argentine corn are giving producers considerable costs for raw material. Prices are quoted at \$6.50@6.60 in ear lots.

SOYA BEAN OIL.—The market is steady, with prices showing very little change. Sales are of small volume. Spot is quoted at $6\frac{3}{4}$ @ 7 c.

PALM OIL.—The position of the market continues very firm. Prices are higher and cables report a very firm market. Offerings

from shipping points are not heavy enough to affect values. Prime red spot, 7 @ $7\frac{1}{4}$ c.; do., to arrive, 7c.; Lagos, spot, $7\frac{1}{4}$ c.; to arrive, $7\frac{1}{2}$ @ $7\frac{3}{4}$ c.; palm kernel, $10\frac{1}{4}$ @ 11 c.; shipment, $10\frac{1}{2}$ c.

NEATSFOOT OIL.—Prices are steady, with a rather quiet trade. For 20 cold test, 97c.; 30 do., 88c.; 40 do., water white,—; prime, 65@66c.; low grade off yellow, 62c.

GREASE.—The market has ruled very quiet all the week, but with the tone fairly steady on all grades. Quotations are nominal as follows: Yellow, $5\frac{1}{4}$ @ $5\frac{1}{2}$ c.; bone, $5\frac{1}{4}$ @ 6 c.; house, $5\frac{1}{2}$ @ $5\frac{3}{4}$ c.

GREEN AND SWEET PICKLED MEATS.

(Special Report to The National Provisioner from the Davidson Commission Co.)

Chicago, September 24.—Quotations on green and sweet pickled meats, f. o. b. Chicago, loose:

Regular Hams—Green, 10@12 lbs. ave., $13\frac{1}{4}$ @ $13\frac{1}{2}$ c.; 12@14 lbs. ave., 13 @ $13\frac{1}{2}$ c.; 14@16 lbs. ave., $12\frac{3}{4}$ @ 13 c.; 18@20 lbs. ave., $12\frac{3}{4}$ @ 13 c. Sweet pickled, 8@10 lbs. ave., $14\frac{1}{4}$ c.; 10@12 lbs. ave., $14\frac{1}{4}$ @ $14\frac{1}{2}$ c.; 12@14 lbs. ave., $13\frac{3}{4}$ @ 14 c.; 14@16 lbs. ave., $13\frac{3}{4}$ @ $13\frac{3}{4}$ c.; 18@20 lbs. ave., $13\frac{3}{4}$ @ 14 c.

Skinny Hams—Green, 14@16 lbs. ave., $13\frac{3}{4}$ @ 14 c.; 16@18 lbs. ave., $13\frac{3}{4}$ @ 14 c.; 18@20 lbs. ave., $13\frac{3}{4}$ @ 14 c.; 22@24 lbs. ave., $13\frac{1}{2}$ @ $13\frac{3}{4}$ c. Sweet pickled, 14@16 lbs. ave., $14\frac{1}{2}$ @ $14\frac{1}{2}$ c.; 16@18 lbs. ave., $14\frac{1}{2}$ @ $14\frac{1}{2}$ c.; 18@20 lbs. ave., $14\frac{1}{2}$ @ $14\frac{1}{2}$ c.; 22@24 lbs. ave., $13\frac{3}{4}$ @ 14 c.

New York Shoulders—Green, 10@12 lbs. ave., $9\frac{1}{2}$ @ 10 c. Sweet pickled, 10@12 lbs. ave., 10 @ $10\frac{1}{4}$ c.

Picnic Hams—Green, 5@6 lbs. ave., $9\frac{1}{8}$ @ $9\frac{1}{4}$ c.; 6@8 lbs. ave., 9 @ $9\frac{1}{8}$ c.; 8@10 lbs. ave., $8\frac{3}{4}$ @ $8\frac{3}{4}$ c.; 10@12 lbs. ave., $8\frac{3}{4}$ @ $8\frac{3}{4}$ c. Sweet pickled, 5@6 lbs. ave., $9\frac{1}{8}$ @ $9\frac{1}{4}$ c.; 6@8 lbs. ave., $8\frac{3}{4}$ @ $8\frac{3}{4}$ c.; 8@10 lbs. ave., $8\frac{3}{4}$ @ $8\frac{3}{4}$ c.; 10@12 lbs. ave., $8\frac{3}{4}$ @ $8\frac{3}{4}$ c.

Clear Bellies—Green, 6@8 lbs. ave., 16 @ $16\frac{1}{2}$ c.; 8@10 lbs. ave., 15 @ $15\frac{1}{4}$ c.; 10@12 lbs. ave., $14\frac{1}{4}$ @ $14\frac{1}{4}$ c.; 12@14 lbs. ave., 14 @ $14\frac{1}{4}$ c. Sweet pickled, 6@8 lbs. ave., $15\frac{1}{2}$ @ $15\frac{1}{2}$ c.; 8@10 lbs. ave., $14\frac{1}{2}$ @ $14\frac{1}{2}$ c.; 10@12 lbs. ave., $13\frac{3}{4}$ @ 14 c.; 12@14 lbs. ave., $13\frac{3}{4}$ @ $13\frac{1}{2}$ c.

OLEO OIL AND NEUTRAL LARD.

(Special Report to The National Provisioner.)

New York, September 25.—The rain in the districts where they experienced the long spell of extremely dry weather this summer, saving the pasturage and feed crops, which will help, from a feeding standpoint, to offset the short corn crop, and the larger arrivals of hogs, were the cause of a little weakness in the lard and provision markets. Oleo oil and neutral lard are quiet with but little doing.

CHICAGO FERTILIZER MARKET

(Special Letter to The National Provisioner from The Davidson Commission Co.)

Chicago, September 24.—The market for animal ammoniates has been very active the past week, some large sales being made both for prompt and future on basis of \$2.70@2.75 and 10c. on tankage, and on blood \$2.85@2.90 for prompt shipment, with 5c. per unit advance monthly up to December, very few selling beyond this delivery. Most of the producers are sold as far ahead as they care to go on future delivery, but might sell a few cars of prompt tankage at \$2.75 and blood at \$2.90. It is possible that further business can be done on this basis with the monthly advance to December on blood, but at the moment tankage seems extremely difficult to purchase for either prompt or future.

Low grade tankage is sold up for the present, and practically nothing being offered except a little cattle tankage from the West at higher prices. A few cars of 7@15 per cent. renderers' tankage has been sold at \$15 per ton Chicago for prompt shipment. Nothing further offering either prompt or future at the moment in this line. (Complete quotations will be found on page 145.)

LIVESTOCK AND BEEF EXPORTS.

Exports of livestock and dressed beef from United States and Canadian ports for the week ending September 20, 1913, are reported by Williams & Terhune as follows:

Port	Cattle	Sheep	Beef
From New York	136	—	—
From Boston	—	—	—
From Philadelphia	—	—	—
From Baltimore	—	—	—
From Montreal	—	—	—
Total	136	—	—
Total last week	173	—	—

FOREIGN COMMERCIAL EXCHANGE.

New York, September 26.—Foreign commercial exchange rates were quoted today as follows:

London—		
Bankers' 60 days	4.82	@4.8225
Demand sterling	4.8565	@4.8570
Commercial, sight		@4.85 $\frac{1}{2}$
Paris—		
Commercial, 90 days	5.26 $\frac{1}{4}$	@5.26 $\frac{1}{4}$ +1-32
Commercial, 60 days	5.24 $\frac{1}{2}$	—1-32@5.24 $\frac{1}{2}$
Commercial, sight	5.20 $\frac{3}{4}$	@5.20 $\frac{3}{4}$ +1-32
Berlin—		
Commercial, 90 days	93 $\frac{1}{2}$	@ 93 9-16
Commercial, 60 days	93 15-16	@ 94
Commercial, sight	94 15-16	@94 15-16+1-32
Antwerp—		
Commercial, 60 days		@5.28 $\frac{1}{4}$
Commercial, sight		@5.23 $\frac{1}{4}$
Amsterdam—		
Commercial, 60 days	39 11-16	@39 11-16+1-16
Commercial, sight		@40 1-16+1-32

Green Olive Oil Foots

SUPERIOR QUALITY

AND ALL OTHER SOAP MATERIALS

WELCH, HOLME & CLARK CO.

383 West St., New York

STEAMSHIP REFRIGERATION CLAUSE.

The following letter to the trade explains itself:

Chicago, Ill., September 20, 1913.

Dear Sirs:

The Board of Trade of the City of Chicago, through its Provision Inspection Committee, has finally succeeded in effecting a settlement with reference to the refrigeration clause which the steamship companies have been inserting in their bills of lading.

The steamship people claimed that the only purpose and effect of the clause was to relieve the carrier from liability, where it had exercised all due diligence in the care and custody of goods entrusted to its charge in providing a sea-worthy vessel and proper refrigerating machinery. They claim that without some clause the contention might be advanced that the carrier was an absolute insurer. It is well settled beyond any possibility of controversy by the courts here that such exceptions do not excuse the carrier in case of loss or damage occasioned by its own fault or negligence.

In order to make this clear and perfectly understood, the following addition to the clause has been agreed to by the International Mercantile Marine, through its General Western Freight Agent, Mr. J. D. Roth:

"Unless shown to have been caused by the negligence of the carrier, from liability for which the carrier is not exempt under provisions of the Harter Act or the Canadian Water Carriage of Goods Act."

The clause as amended will then read as follows:

REFRIGERATOR CLAUSE.

"The carrier does not undertake to carry any goods or articles in refrigerated or especially cooled or ventilated compartments, and shall not be liable for any loss or damage for failure so to do, unless such carriage is expressly stipulated for herein. Goods or articles carried in any such compartments

THESE ARE THE PLANTS THAT MAKE "PROGRESS" COOKING OIL AND "IDEAL" CHOICE WHITE COOKING OIL

LOUISVILLE SALAD OIL - APPETIZING AND DELICIOUS.

IDEAL HAND CREAM
IDEAL COTTON OIL - 15 OZ.
SPERMACE - 34 OZ.
WHITE WAX - 34 OZ.
OIL OF LAVENDER
FLOWERS - 12 DROPS
ROSEWATER - 74 OZ.
BLUNT TIPPED FINGERS ARE NEVER PRETTY. SO WHY NOT TRY TO MAKE THEM SHAPELY? BEGIN IT TODAY.

EDIBLE OILS FAMOUS THE WORLD OVER

MANUFACTURED BY

LOUISVILLE COTTON OIL CO.,

OFFICE & REFINERY
FLOYD & K STREETS.

INCORPORATED. CABLE ADDRESS
LOUISVILLE, KY. U.S.A. "COTTONOIL" LOUISVILLE.

are at the sole risk of the owner thereof, and subject to all the conditions, exceptions and limitations as to carrier's liability and other provisions of this bill of lading. And, further, the carrier shall not be liable for any loss or damage occasioned by the temperature, risk of refrigeration, accidents to or explosion, breakage, derangement or failure of any refrigerator plant or part thereof, unless shown to have been caused by the negligence of the carrier, from liability for which the carrier is not exempt under provisions of the Harter Act or the Canadian Water Carriage of Goods Act."

The International Mercantile Marine, representing the White Star Line, American Line, Red Star Line, Dominion Line, Layland

Line, Lord Line, American Transport Line, and the White Star Dominion Line, will have this addition inserted in their clause at once, and it is believed that the other steamship lines will undoubtedly fall in line.

The settlement of this matter has been approved by the Chicago Board of Trade, also the Liverpool Provision Trade Association, Ltd., and we trust it will meet with the approval of the shippers generally.

Yours truly,

L. HARRY FREEMAN, Chairman,
Provision Inspection Committee, Board of Trade of the City of Chicago.

FAT-MEN

ALL GRADES OF
ANIMAL
AND
VEGETABLE
FATS

STERNE & SON CO.
JUST BROKERS
Postal Telegraph Building
Chicago

STEARINS - OILS - TALLOW - GREASE - FERTILIZER MATERIALS

The "Anglo" Brands
of Dried Sausage
are Standard

Superior quality and texture



Full Line of
Choice and Fancy Grades

Smoked and Unsmoked

All time-tested brands
Best Business Builders

WRITE FOR QUOTATIONS

THE ANGLO AMERICAN PROVISION CO.
PACKERS Union Stock Yards, Chicago, Ill.

COTTONSEED OIL

WEEKLY REVIEW

THE NATIONAL PROVISIONER is official Organ of the Interstate Cottonseed Crushers' Association, the Texas Cottonseed Crushers' Association, South Carolina Cottonseed Crushers' Association, the Georgia Cottonseed Crushers' Association, and the Mississippi Cottonseed Crushers' Association.

Market Steady—Supply and Demand Conditions Dominate—Crude Offerings Freer, But Not Especially Pressing—Consumers Buy Limited Quantities—Cotton Prospects Unsatisfactory.

The week in the cottonseed oil market was marked by a series of erratic fluctuations, but the net result was not important. Many authorities take the stand that the oil market is on a much healthier basis than for several months, due to the practical disappearance of premiums. It is the popular theory that there will be frequent nervous fluctuations in the months representing the early deliveries of new crop oil, but it is significant that many of the most important commitments have been evened, and at this time the supply and demand situation appears to be dominating, rather than activity of speculative forces.

Sentiment is very much mixed. Some interests who were predicting over 9c. for October oil, are now of the opinion that there cannot be much of an advance before crude mills have liquidated more of their product. On the other hand there is a conservative element in the trade that was not in sympathy with the creation of big premiums for the

fall months, and here the view is that prevailing levels are not unreasonably high.

Sight is not lost of the fact that prices at present in the local market are about at the 7c. level, or 1c. a pound above last year. The theory in common is that these relatively high levels will cause a liberal crush of seed this year, and will also act as an incentive to crude mills to sell, but thus far the pressure resulting from the supply of seed and crude has been comparatively limited. It is true that during the last few weeks, many Southern mills desiring to take advantage of the prevailing premiums, offered oil in abundance, and broke the price several cents a gallon, but crude for late fall and winter shipment did not suffer much.

Advocates of lower prices are not aggressively bearish, and seemingly object more to bulling oil at this season of the year, than they do to the values now in force. Among these interests are operators who even at this early date are forecasting higher levels for oil by the spring. The prediction is based on the prospects for a smaller cotton crop, and on the outlook for a limited supply of animal fats, this latter condition to be aggravated by the smaller and dearer feeding supplies available for farm animals.

The demand for cotton oil from consumers this week has been rather less active, but not discouragingly so. Foreigners have sent their usual inquiries, and the home trade is bidding

for occasional lots, but prices that were asked were rather above users' views. There is a tendency to anticipate a revival of the demand very soon. Both European and domestic consumers are thought to be carrying only light stocks as a result of the recent high levels commanded by the quick shipment stuff. Pure lard keeps quite steady, and although there has been a downward tendency during the past ten days, the setback has not been pronounced, so that compound lard is still in a position to be benefited by the ruling plane of animal fats.

Advices from the South suggest that crude mills are disposed to sell a part of their surplus, but offerings for distant delivery are not free. Quite a little hedging has been noted on the New York Produce Exchange, where the market has provided an attractive basis for such operations, but such selling has been fairly well absorbed, this partially reflecting the fair aggregate consuming trade. Of course there has been more or less speculative buying, but such operations have not been impressive, and were partly offset by the customary opposition from speculative quarters.

Thus far there has not been much outside buying predicated on the less satisfactory cotton crop advices. Fears of crude coming out in volume checked inquiry of this character, while the reaction that lard suffered also tended to restrain speculative buyers from entering the market. On the other hand capital was made of the steadier situ-

The Best is The Cheapest



MADE in the United States
and Canada

USED everywhere

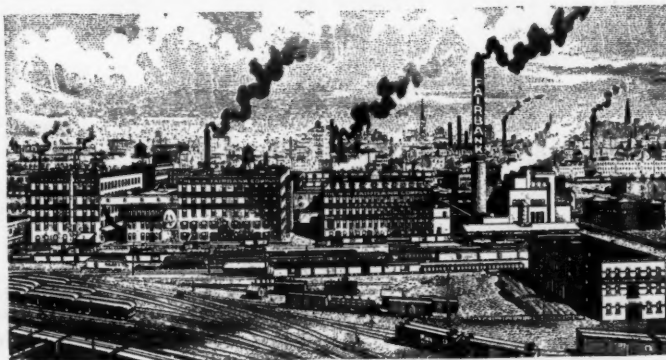
THE N. K. FAIRBANK COMPANY,
MAKERS, CHICAGO

Factories

Chicago
St. Louis
New York
New Orleans
Montreal

Branch Houses

New York Boston
Philadelphia Pittsburgh
Atlanta New Orleans
Fort Worth St. Louis
San Francisco Minneapolis
Montreal



CHICAGO FACTORY, THE N. K. FAIRBANK COMPANY.

ation in foreign oils, which it was thought would aid in stimulating foreign buying of cotton oil at no distant date.

Estimates as to the cotton crop will probably make their appearance during the next few weeks, but there is still a tendency to await the frost date before definite conclusions are formed. Crop experts agree that the season so far has been exceedingly difficult to gauge. It is also admitted that the outturn will be materially under earlier expectations, and estimates seem to be constantly revised downward. Few are looking for much over 14,000,000 bales, and there are many who believe that even with ideal weather from this time on, the crop of seed cotton will not be much over 13,250,000 bales. Local interests had reports from the South during the week of excessive rains having lowered the quality of the seed in the West, also in scattered sections of the Central West and East. Large refining concerns have reported refining losses from early crude about up to the normal, but early seed receipts give irregular returns, and are hardly a fair test.

Closing prices, Saturday, September 20, 1913.—Spot, \$7.15; September, \$7.18@7.60; October, \$7.14@7.15; November, \$6.98@7.12; December, \$6.98@6.99; January, \$7.02@7.03; February, \$7.10@7.12; March, \$7.20@7.23; April, \$7.29@7.31. Futures closed 3 to 6 decline. Sales were: September, 100, \$7.25; October, 1,300, \$7.20@7.15; November, 700, \$7.01@6.98; December, 2,100, \$7.04@7.19; January, 100, \$7.11; February, 3,200, \$7.20@7.19; March, 300, \$7.34@7.28; April, 100, \$7.38. Total sales, 7,900 bbls. Good off, \$6.70@7.50; off, \$6.60@7.40; reddish off, \$6.50@7.40; winter, \$7.50; summer, \$7.40; prime crude, S. E., Sept., \$5.87, sales.

Closing prices, Monday, September 22, 1913.—Spot, \$7.20@7.50; September, \$7.13@7.60; October, \$7.14@7.16; November, \$7.04@7.05; December, \$7.03@7.05; January, \$7.04@7.06; February, \$7.12@7.13; March, \$7.21@7.24; April, \$7.30@7.32. Futures closed 5 decline to 6 advance. Sales were: September, 600, \$7.25@7.14; October, 1,600, \$7.20@7.15; November, 4,500, \$7.06@6.98; December, 4,000, \$7.05@7.13; January, 2,900, \$7.09@7.07; March, 3,000, \$7.28@7.25; May, 300, \$7.45@7.44. Total sales, 16,900 bbls. Good off, \$6.80@7.10; off, \$6.70@7.10; reddish off, \$6.35@6.85; winter, \$7.75; summer, \$7.20; prime crude, S. E., Sept., \$5.87, sales.

Closing prices, Tuesday, September 23, 1913.—Spot, \$7.06@7.20; September, \$7.02@7.06; October, \$7.05@7.08; November, \$6.97@7.12; December, \$6.97@7.12; January, \$6.98@7.12; February, \$7.08@7.10; March, \$7.17@7.18; April, \$7.26@7.28. Futures closed 4 to 11 decline. Sales were: Spot, 200, \$7.10@7.08; September, 400, \$7.06@7.02; October, 1,400, \$7.14@7.05; November, 1,300, \$7.02@6.98; December, 600, \$7.01@6.98; January, 700, \$7.03@6.99; February, 1,100, \$7.11@7.09; March, 4,900, \$7.20@7.16; April, 800, \$7.28@7.26. Total sales, 11,400 bbls. Good off, \$6.90@7.10; off, \$6.60@7.05; reddish off, \$6.25@7.05; winter, \$7.75; summer, \$7.20; prime crude, S. E., Sept., \$5.87, sales.

Closing prices, Wednesday, September 24, 1913.—Spot, \$7.07@7.40; September, \$7.05@7.25; October, \$7.06@7.07; November, \$6.99@7.12; December, \$6.99@7.12; January, \$7.01@7.12; February, \$7.09@7.12; March, \$7.20@7.21; April, \$7.28@7.30. Futures closed 1 to 3

advance. Sales were: September, 100, \$7.05; October, 3,200, \$7.07@7.03; November, 800, \$7.01@6.95; December, 3,600, \$7.01@6.96; January, 3,700, \$7.01@6.96; February, 500, \$7.08; March, 4,100, \$7.20@7.16. Total sales, 16,000 bbls. Good off, \$6.85@7.10; off, \$6.80@6.95; reddish off, \$6.50@6.80; winter, \$7.75; summer, \$7.30; prime crude, S. E., Sept., \$5.80@5.94.

Closing prices, Thursday, September 25, 1913.—Spot, \$7.13; September, \$7.12@7.50; October, \$7.08@7.10; November, \$6.99@7.12; December, \$6.99@7.12; January, \$7.01@7.02; February, \$7.11@7.12; March, \$7.20@7.22; April, \$7.28@7.32. Futures closed unchanged to 7 advance. Sales were: October, 1,100, \$7.10@7.08; November, 1,000, \$7.01@6.98; December, 1,900, \$7.06@6.99; January, 4,700, \$7.03@7.12; February, 1,300, \$7.13@7.11; March, 3,900, \$7.23@7.21. Total sales, 13,900 bbls. Good off, \$6.90@7.50; off, \$6.80@7.10; reddish off, \$6.30@6.85; winter, \$7.60; summer, \$7.20; prime crude, S. E., Sept., \$5.87, nom.

SEE PAGE 147 FOR LATER MARKETS.

COTTONSEED OIL EXPORTS.

Exports of cottonseed oil reported for the week ending September 25, 1913, and for the period since September 1, 1913, were as follows:

From New York—	Week ending Sept. 18, '13.	Since Sept. 1, '13.
	Bbls.	Bbls.
Barbados, W. I.	110	110
Cape Town, Africa	96	96
Christiania, Norway	220	220
Colon, Panama	82	152
Demerara, British Guiana	76	76
Genoa, Italy	70	70
Glasgow, Scotland	175	175
Hamburg, Germany	10	10
Havana, Cuba	15	49
Kingston, W. I.	7	41
Liverpool, England	100	130
London, England	2	2
Marseilles, France	100	100
Matanzas, Cuba	4	4
Melbourne, Australia	14	14
Monte Cristi, S. D.	6	6
Montevideo, Uruguay	62	62
Naples, Italy	20	20
Piraeus, Greece	11	11
Port Antonio, W. I.	37	37
Port au Prince, W. I.	11	11
Port Limon, C. R.	14	27
Rio Janeiro, Brazil	77	77
Rotterdam, Holland	206	206
San Domingo, S. D.	36	54
San Juan, P. R.	44	44
Santiago, Cuba	23	23
Santos, Brazil	100	100
Sydney, Australia	10	10
Trieste, Austria	200	455
Trinidad, W. I.	6	22
Valparaiso, Chile	158	158
Venice, Italy	50	2,116
Vera Cruz, Mexico	12	12
Total	589	4,700
From New Orleans—		
Havana, Cuba	150	235
Rotterdam, Holland	400	400
San Juan, P. R.	450	450
Total	150	1,085

From all other ports—	
Canada	78
Mexico (including overland)	545
Total	623
Recapitulation—	
From New York	589
From New Orleans	150
From all other ports	623
Total	739
	6,408

COTTONSEED OIL SITUATION.

(Special Letter to The National Provisioner from Aspegren & Co.)

New York, September 24, 1913.—Since our last report the market has suffered a considerable decline, particularly the September and October deliveries. The former showing as much as 98 points and the latter 70 points. The balance of the lists only show declines of 21 to 29 points, with the November delivery leading. The almost entire absence of demand from the consuming trade and the heavy selling of crude oil for quick and nearby shipments was responsible for the greater part of the declines. Later, in addition to the above class of selling, came heavy outpouring of long holdings and the latter selling carried the September and October deliveries to new low levels for this movement. There seems to be no rallying power in the market, repeated attempts were made during the interval to advance the market, but after moving the market up a few points on heavy buying offerings at the high prices became too heavy and values immediately dropped to where they started from. As stated all along, without demand from the consumer, values could not hold. At today's prices of the nearby deliveries, however, the consumer should come in for some supplies which should temporarily check the decline. The consumers, however, will not buy anything beyond their requirements for nearby wants.

The outlook at the end of the week is uncertain, within a few days October tenders will be made, and the trade is waiting anxiously to see what effect same are going to have on the market.

	Closing prices Sept. 10.		High.		Low.		Closing prices Sept. 20.	
Sept.	\$8.12 b	\$8.15 a	\$8.10	\$7.02	\$7.05 b	\$7.25 a		
Oct.	7.70 b	7.71 a	7.73	7.03	7.06 b	7.07 a		
Nov.	7.08 b	7.09 a	7.08	6.79	6.99 b	7.00 a		
Dec.	7.05 b	7.06 a	7.05	6.82	7.00 b	7.00 a		
Jan.	7.05 b	7.06 a	7.04	6.83	6.99 b	7.01 a		
Mar.	7.18 b	7.19 a	7.25	7.03	7.20 b	7.21 a		

COTTON SEED PRODUCTS

BOUGHT AND SOLD
ON BROKERAGE BASIS
EXCLUSIVELY

LET US OFFER
YOUR CRUDE OIL AND
SOAPSTOCK.

WOOD, FRY & CO.

60 BROADWAY, NEW YORK

Members New York Produce Exchange

The Chickasha Cotton Oil Company

General Office . . Chickasha, Okla.

Manufacturers of Crude and Refined Cotton Seed Oil.
Shipment in buyers or sellers tanks.

Also Cottonseed Meal for Feeding and Fertilizer purposes.

C. L. WIDNEY, Sales Manager

The Procter & Gamble Co.

Refiners of All Grades of

COTTONSEED OIL

Jersey Butter Oil
Boreas, Prime Winter Yellow
Venus, Prime Summer White

Marigold Cooking Oil
White Clover Cooking Oil
Puritan Salad Oil

Offices: Cincinnati, Ohio

Refineries: {
IVORYDALE, O.
FORT IVORY, N. Y.
KANSAS CITY, KAN.
MACON, GA.

Cable Address: Procter, Cincinnati, U. S. A.

ASPEGREN & CO.

Produce Exchange Building **NEW YORK CITY**

EXPORTERS **BROKERS**

ORDERS SOLICITED
TO
BUY OR SELL

COTTON SEED OIL

SPOT AND FUTURE DELIVERY

WE ISSUE THE ONLY DAILY PRINTED MARKET LETTER ON COTTON SEED OIL IN THIS COUNTRY. SENT FREE OF CHARGE TO OUR REGULAR CUSTOMERS

WE ARE SELLING AGENTS FOR
THE PORTSMOUTH COTTON OIL REFG. CORP. OF PORTSMOUTH, VA. — AND — THE GULF & VALLEY C. O. COMPANY, LTD., OF NEW ORLEANS, LA.

WILL BE PLEASED TO QUOTE PRICES ON ALL GRADES OF REFINED COTTON SEED IN BARRELS OR LOOSE IN BUYERS OR SELLERS TANK CARS, F.A.R. REFINERY
ON DELIVERED ANYWHERE IN THIS COUNTRY OR EUROPE.

COTTON OIL CABLE MARKETS**Hamburg.**

(By Cable to The National Provisioner.)

Hamburg, September 26.—Market easy. Quotations: Choice summer white oil, 72½ marks; butter oil, 73½ marks; summer yellow, 69¼ marks.

Rotterdam.

(By Cable to The National Provisioner.)

Rotterdam, September 26.—Market firm. Quotations: Summer yellow, 41 florins; choice summer white, 42½ florins, and butter oil, 43 florins.

Antwerp.

(By Cable to The National Provisioner.)

Antwerp, September 26.—Market easy. Quotations: Summer yellow, 85¼ francs.

Marseilles.

(By Cable to The National Provisioner.)

Marseilles, September 26.—Market firm. Quotations: Prime summer yellow, 86 francs; prime winter yellow, 91 francs; choice summer white oil, 88½ francs.

Liverpool.

(By Cable to The National Provisioner.)

Liverpool, September 26.—Market easy. Quotations: Prime summer yellow, 34½s; summer yellow, 34¼s.

SOUTHERN MARKETS**Columbia.**

(Special Wire to The National Provisioner.)

Columbia, S. C., September 25.—Crude cottonseed oil, immediate, 44c; October, November and December, 43½c. Market very quiet the past week.

Atlanta.

(Special Wire to The National Provisioner.)

Atlanta, Ga., September 25.—Crude cottonseed oil steady at 44c. Basis prime meal easier at \$24.50, f. o. b. mills. Hulls, \$6, Atlanta, loose.

New Orleans.

(Special Wire to The National Provisioner.)

New Orleans, La., September 25.—Prime crude cottonseed oil, Texas, 45c. for immediate; 44c. for first half of October; offerings light; demand good. Prime meal, 8 per cent., firm at \$29, short ton, New Orleans; 7½ per cent. meal, \$28. Loose hulls, \$8.25, sacked, \$11 here.

Dallas.

(Special Wire to The National Provisioner.)

Dallas, Tex., September 25.—Fairly good trading in prime crude cottonseed oil this week in small lots at 45c. for September and 44½c. bid for early October; later months, 43½c. Choice loose cake, \$28, short ton, f. o. b. Galveston. Rain reported today over Texas and Oklahoma.

CHEMICALS AND SOAP SUPPLIES.

(Special Report to The National Provisioner.)

New York, September 25.—Latest quotations on chemicals and soapmakers' supplies are as follows: 74@76 per cent. caustic soda, \$1.55@1.65 basis 60 per cent.; 60 per cent. powdered caustic soda, \$1.80 per 100 lbs.; 98 per cent. powdered caustic soda in bbls. 2½ @2½c. per lb.; 58 per cent. soda ash, 80c. per 100 lbs. basis 48 per cent.; 48 per cent. carbonate soda ash, 95c. per 100 lbs.; tale, 1¼@1¾c. per lb.; silex, \$15@20 per ton of 2,000 lbs.; marble flour, \$8 per ton of 2,000 lbs.; silicate soda, 90c. per 100 lbs.; chloride of lime in casks 1½c., and in bbls. 2c. per lb.; carbonate of potash, 4@4½c. per lb.; electrolytic caustic potash, 90@92 per cent., at 4½@5c. per lb.

Prime palm oil in casks, 7@7¼c. per lb.; genuine Lagos palm oil in casks, 7¼@8c. per lb.; clarified palm oil in bbls. 7¼c. per lb.; palm kernel oil in casks, 10¾@11c. per lb.; green olive oil, 78c. per gal.; yellow olive oil, 85@87c. per gal.; green olive oil foots, 8@8¼c. per lb.; peanut oil, 65@75c. per gal.; Ceylon coconut oil, 11@11¼c. per lb.; Cochinchina coconut oil, 13½@14c. per lb.; cottonseed oil, 7½@7¾c. per lb.; corn oil, 6.50@6.60c. per lb.; Soya bean oil, 6¾c. per lb.

Prime city tallow, 6¾c. per lb.; house grease, 5½@6c. per lb.; brown grease, 5½@5¾c. per lb.; yellow packer's grease, 5¾@6c. per lb.

EXPORTS OF COTTONSEED OIL.

Official government reports show exports of cottonseed oil for August from the entire United States amounting to 13,616 barrels, compared to 32,789 barrels in June, 1912. For the eight months ending August 31, 1913, exports are reported as 489,015 barrels, compared to 616,671 barrels for the same period of the year previous.

Cottonseed Products Associations.**INTER STATE COTTON SEED CRUSHERS' ASSOCIATION.**

President, M. E. Singleton, E. St. Louis, Ill.
Vice-President, C. L. Ives, New Bern, N. C.
Secretary-Treasurer, Robert Gibson, Dallas, Texas.

ALABAMA COTTON SEED CRUSHERS' ASSOCIATION.

President, S. J. Cassels, Montgomery.
Vice-President, T. J. Kidd, Birmingham.
Secretary-Treasurer, C. E. McCord, Prattville.

ARKANSAS COTTON SEED CRUSHERS' ASSOCIATION.

President, E. S. Ready, Helena.
Vice-President, J. P. Faucette, Argenta.
Secretary-Treasurer, J. B. Flahburne, Little Rock.

NORTH CAROLINA COTTON SEED CRUSHERS' ASSOCIATION.

President, F. N. Bridgers, Wilson, N. C.
Vice-President, E. V. Zoeller, Tarboro, N. C.
Secretary, H. A. White, Greenville, N. C.
Treasurer, F. O. Dunn, Kinston, N. C.

GEORGIA COTTON SEED CRUSHERS' ASSOCIATION.

President, B. L. Bond, Royston.
Vice-President, P. D. McCortley, Atlanta.
Secretary-Treasurer, A. A. Frierson, Atlanta.

LOUISIANA COTTON SEED CRUSHERS' ASSOCIATION.

President, J. W. Vogler, Alexandria.
Vice-President, W. P. Hayne, Boyce.
Secretary-Treasurer, Bryan Bell, New Orleans.

MISSISSIPPI COTTON SEED CRUSHERS' ASSOCIATION.

President, H. C. Forrester, Meridian.
Vice-President, J. B. Perry, Grenada.
Secretary-Treasurer, E. C. McLain, Jackson.

OKLAHOMA COTTON SEED CRUSHERS' ASSOCIATION.

President, James W. Du Free, Oklahoma City.
Vice-President, A. G. Enkins, Shawnee.
Secretary-Treasurer, J. A. Schwartz, Chickasha.

SOUTH CAROLINA COTTON SEED CRUSHERS' ASSOCIATION.

President, John A. Hudgens, Pelzer.
Vice-President, John T. Stevens, Kershaw.
Secretary, B. F. Taylor, Columbia.
Assistant Secretary, W. B. West, Columbia.

TEXAS COTTON SEED CRUSHERS' ASSOCIATION.

President, W. F. Pendleton, Farmersville.
Vice-President, Patrick Grogan, Houston.
Secretary, Robert Gibson, Dallas.
Treasurer, J. A. Underwood, Honey Grove.

VEGETABLE STEARINES AND MARGARINES

of a quality to meet requirements for food purposes for

Lard Refiners, Compound Makers, Butterine Manufacturers, Candy Makers, etc.

and for all purposes where animal margarines and stearines are being used.

JOSLIN-SCHMIDT & COMPANY,

CINCINNATI, OHIO, U. S. A.

AMONG THOSE PRESENT.

(Continued from page 129.)

John C. Clair, I. C. R. R., Chicago, Ill.
 E. J. Hamilton, City Press, Chicago, Ill.
 G. S. Patterson, German-American Provision Co., Chicago, Ill.
 T. T. Leddy, City News Bureau, Chicago, Ill.
 D. Ryan, J. S. Hoffman & Co., Chicago, Ill.
 D. S. Jasper, Chicago, Ill.
 H. Rehfeld, Manager Casing, Buenos Aires.
 A. Q. Franklin, Armour & Co., Chicago, Ill.
 G. Greenleaf, Fred Higbie Co., Chicago, Ill.
 R. G. Wayne, Fred Higbie Co., Chicago, Ill.
 L. G. Schmidt, Jas. B. Clow & Sons, Chicago, Ill.
 W. J. McDowell, General Vehicle Co., Chicago, Ill.
 Beecher Starbird, Anglo-American Provision Co., Chicago, Ill.
 B. H. Heide, Union Stock Yards, Chicago, Ill.
 Oscar G. Mayer, O. F. Mayer & Bro., Chicago, Ill.
 G. Hallenbach, Chicago, Ill.
 J. R. Russell, Chicago, Ill.
 Hugo F. Arnold, Arnold Bros., Chicago, Ill.
 B. H. Miller, Jr., Worcester Salt Co., St. Louis, Mo.
 W. White, North American Provision Co., Chicago, Ill.
 Al. Healy, L. Pfaelzer & Sons, Chicago, Ill.
 D. Pfaelzer, L. Pfaelzer & Sons, Chicago, Ill.
 M. Wolf, L. Pfaelzer & Sons, Chicago, Ill.
 N. H. Bollber, Louis Pfaelzer & Sons, Chicago, Ill.
 Morris Schwabacher, North American Provision Co., Chicago, Ill.
 F. Rayfield, Swift & Co., Chicago, Ill.
 Walter Wangreth, Adler & Oberndorf, Chicago, Ill.
 Jos. Adler, Adler & Oberndorf, Chicago, Ill.
 R. W. Barnes, Morton-Gregson Co., Chicago, Ill.
 Chas. A. Murphy, C. A. Murphy, Chicago, Ill.
 Leon Alexandre, National Provisioner, New York, N. Y.
 J. B. Howell, Paine & Co., Ltd., Wilkes-Barre, Pa.
 B. B. Hanek, B. B. Hanek Co., Chicago, Ill.
 C. H. Shedd, Chicago, Ill.
 S. E. Bennett, U. S. Dept. Agriculture, Illinois.
 A. B. Friedman, Friedman Mfg. Co., Chicago, Ill.
 David T. Kiley, Armour & Co., Chicago, Ill.
 J. J. Benos, W. D. Co., Chicago, Ill.
 F. Rudolph, American Can Co., Chicago, Ill.
 W. S. Kelch, Friedman Mfg. Co., Chicago, Ill.
 Fred Clark, North P. & P. Co., Boston, Mass.
 J. Gerber, R. Gerber & Co., Chicago, Ill.
 D. Maxwell, German-American Provision Co., Chicago, Ill.
 H. C. Schoper, Armour & Co., Chicago, Ill.
 M. F. Harris, German-American Provision Co., Chicago, Ill.
 E. B. Kitzinger, Sulzberger & Sons Co., Chicago, Ill.
 C. F. Dickens, The Layton Co., Milwaukee, Wis.
 A. J. Little, Halstead & Co., Jersey City, N. J.
 Wm. A. Dawson, The Layton Co., Milwaukee, Wis.
 C. P. J. Kroeck, Cudahy Bros., Co., Milwaukee, Wis.
 J. V. Jamison, Jones Cold Store Door Co., Hagerstown, Md.
 C. M. Aldrich, Morton-Gregson Co., Nebraska City, Neb.
 Milton Pfaelzer, S. & S. Co., Chicago, Ill.
 Otto Stohl, New York, N. Y.
 G. M. Willetts, Armour & Co., Chicago, Ill.
 Geo. Schmidt, Otto Stohl, New York, N. Y.
 Conrad J. Diesel, Diesel & Helbig Co., Lemont, Ill.
 Gilbert J. Helbig, Diesel & Helbig Co., Lemont, Ill.
 Geo. H. Marting, vice-president Stedman's Foundry & Machine Works, Aurora, Ind.
 F. Major, Major Packing Co., Mishawaka, Ind.

W. D. Eastwood, Major Packing Co., Mishawaka, Ind.
 F. Van Dreifus, Dreifus Packing & Provision Co., Lafayette, Ind.
 J. H. Kilp, Anglo-American Provision Co., Chicago, Ill.
 Chas. Christman, West Carrollton Parchment Co., Dayton, O.
 F. C. Vogelbach, W. R. Crawford Co., Cincinnati, O.
 A. Waterman, Worm & Co., Indianapolis, Ind.
 W. M. Taylor, Highland Lockwood Co., Boston, Mass.
 C. G. Snow, North American Provision Co., Chicago, Ill.
 Richard C. Smith, John E. Smith's Sons Co., Buffalo, N. Y.
 E. R. Hankins, Sefton Mfg. Co., Chicago, Ill.
 F. J. Schweter, Sefton Mfg. Co., Chicago, Ill.
 C. W. Roth, Armour & Co., Chicago, Ill.
 D. E. Washington, Packers' Architectural & Engineering Co., Chicago, Ill.
 J. J. Blenat, W. D. Co., New York City, N. Y.
 Jos. J. Martin, D. B. Martin Co., Philadelphia, Pa.
 R. H. Duryea, Jr., Chicago, Ill.
 Geo. Monarque, Chicago, Ill.
 J. Straus, J. Straus Co., New York City, N. Y.
 R. W. Shaumann, North American Provision Co., Chicago, Ill.
 Wm. Sheely, Chicago, Ill.
 Frederick Holmes, Chicago, Ill.
 E. Thielme, Standard Casing Co., Chicago, Ill.
 J. F. Daniels, J. Winterbotham & Sons, Chicago, Ill.
 E. C. Kenny, Continental Can Co., New York, N. Y.
 F. C. Shaw, North American Provision Co., Chicago, Ill.
 C. A. Burgess, S. T. Fish, Chicago, Ill.
 J. R. Smith, Maryland Eldridge Co., Chicago, Ill.
 W. L. Pease, Sears Roebuck Co., Chicago, Ill.
 E. C. Fox, Wm. Davis Co., Ltd., Toronto, Can.
 A. L. Hodder, San Jose, Costa Rica.
 M. Czajkowski, Wilkes-Barre Beef Co., Wilkes-Barre, Pa.
 Glenn Evans, Adler & Oberndorf, Chicago, Ill.
 A. M. Adler, Adler & Oberndorf, Chicago, Ill.
 O. J. Danzeisen, Danzeisen Packing Co., Decatur, Ill.
 John Wagner, G. W. Williams Salt Co., Chicago, Ill.
 Chas. Brownell, Standard Slaughtering Co., Chicago, Ill.
 M. E. O'Dea, Standard Slaughtering Co., Chicago, Ill.
 Henry Dummert, Chicago, Ill.
 F. Adams, Fred C. Adams Co., Chicago, Ill.
 Andre Lebon, Paris, France.
 Sidney Degginger, Independent Butchers' Supply Co., Chicago, Ill.
 Chas. G. Stohrer, Independent Butchers' Supply Co., Chicago, Ill.
 A. H. Arnold, F. K. Higbie Co., Chicago, Ill.
 John S. Gorham, General Vehicle Co., Chicago, Ill.
 W. Christiansen, J. S. Hoffmann Co., Chicago, Ill.
 T. A. McKenna, 6146 Vernon avenue, Chicago, Ill.
 R. F. Chapin, Albert Worm & Co., Indianapolis, Ind.
 W. J. Cox, Continental Can Co., New York City.
 H. F. Diesel, Diesel & Helbig, Lemont, Ill.
 D. G. Madden, E. Tennessee Packing Co., Knoxville, Tenn.
 W. A. Kerber, Kerber Packing Co., Elgin, Ill.
 Louis J. Pfaelzer, Louis Pfaelzer & Sons, Chicago, Ill.
 W. H. Spencer, S. & S. Co., Chicago, Ill.
 E. A. Lunham, Boyd, Lunham & Co., Chicago, Ill.
 S. R. Benner, Boyd, Lunham & Co., Chicago, Ill.

FIGURING REFRIGERATING POWER.

(Continued from page 131.)

$$P = \frac{\text{Diff. between temp. in refr. coils and temp.} \times \text{lat. heat of vaporization} \times \text{weight of gas entering comp. per min.}}{0.0234}$$

The coefficient 0.0234 is obtained by dividing 778, the foot-pounds equivalent to one heat unit, by 33,000.

The weight of ammonia to be pumped per minute is found by subtracting the difference between temperatures in the condenser and the refrigerator from the latent heat of vaporization at the refrigerator pressure, which gives the refrigerating effect of one pound of the refrigerant. Then the quotient obtained by dividing the total refrigerating duty expressed in thermal units by the refrigerating effect of one pound of refrigerant gives the theoretical weight of gas that must be pumped per minute.

Thus, given a case where a million British thermal units per hour are to be taken up; temperature to be maintained in chill room 20 deg. F., equal to between 10 and 15 deg. in refrigerator coils, and liquid ammonia leaving condenser at 90 deg. From the latest ammonia tables the latent heat of vaporization at 20 deg. F. is 556; then 556-(90-10) = 476

$$\frac{1,000,000}{476 \times 60} = 35$$

the number of pounds of ammonia that must be circulated per minute to take up one million heat units per hour. Then, according to the formula,

$$P = \frac{90-10}{10+460} \times 556 \times 35 \times 0.0234 = 77.5$$

the horsepower required to operate the compressor. This does not allow for losses by friction or by superheat of the ammonia entering the compressor and hence it is customary to add from 10 to 20 per cent., or, say, an average of 15 per cent., to make up for these losses. The actual horsepower required would then be

$$77.5 + (0.15 \times 77.5) = 89.1$$

The engine driving the compressor will require about one-third more power or 89.1 \times 1 1/3 hp.

The horsepower required for steam pumps, vacuum pumps, etc., may be figured according to formulas given in standard handbooks, but the result will be by no means always dependable, for a number of errors may creep in, due to leaks, slipping of belts, friction, imperfect valve action, etc. It is still true today, as it was ten years ago, that many pumps in actual use yield little over 50 per cent. of their theoretical capacity. The old rule of 120 pounds of steam per hp.-hr. for ordinary steam pumps is still not far from the amount actually consumed.

Conditions vary so greatly not only in different plants, but at different times, in the same plant, that it is exceedingly difficult to secure a short cut for figuring power requirement that would fit all cases. Temperatures of the liquid refrigerant, air or foul gases in the system, quantity of refrigerant in circulation, varying temperatures to be maintained at the same back pressure, these and other items all affect the result.

So far as the capacity of the refrigerating machine itself is concerned, this is almost entirely proportioned to the weight (not volume) of ammonia circulated and this weight depends upon the suction pressure and the cubic feet displacement of the compressor. In elaborate tests made some years ago the conclusion was reached by Professor Denton that the practical range of economical suction pressure lies between 7 pounds gage with which a temperature of zero can be maintained, and 28 pounds gage, with which temperatures above 28 deg. F. are maintained. But at 7 pounds suction pressure only about half as much ammonia by weight can be circulated as at 28 pounds back pressure.

HIDES AND SKINS

(DAILY HIDE AND LEATHER MARKET)

Chicago.

PACKER HIDES.—The tanners continue to stay out of the packer market, and there is still an absence of sales reported. Evidently tanners are not interested at present asking prices, and especially owing to the fact that most varieties could not be shipped for about six weeks. It is possible that the tanners are figuring that prices may be lower by that time if they continue to hold out of the market, as there is considerable talk about the market having reached top on packer takeoff. The asking prices, however, are as high as ever, and packers have no incentive to lower rates talked. Native steers are held up to 20c., with last business in Septembers at 19½c., which trading was reported to a dealer and not to a tanner. Texas steers continue at 19c. for heavy, 18½c. for light and 18c. for extremes, with the asking prices ¼c. higher for each weight. No additional sales are reported. Butt brands remain firm and well sold up, with 18½c. generally asked and some talking even higher. Last sales were in conjunction with Colorados at 18½c. Colorados last sold at 18½c. in combination with butt brands, and are hardly obtainable at less than that figure to sell alone today, with some talking even more. Branded cows last brought 18c., and are closely sold up and strong, with up to 18½c. asked. Native cows continue without trading, but are steady to firm, ranging 18½@18¾c. for all weights. Native bulls were last held at 16c. for June to January, with no trading, and the former quotations on sales of July to January ranged 15¼@16c. Branded bulls continue at the former range of 14½@15c. for late salting, as to average, etc.

Later.—Market dull. The only sale reported is a car of September light native steers at 19c.

COUNTRY HIDES.—The market is strong notwithstanding a rather backward demand as evidenced by a late sale of a car of 50-lb. and up at 16¼c., which is considered a good price as heavy cows are more draggy than lighter weights, and alone are not quoted by some parties at over 16c. Most dealers are firm at their asking figure of 16½c. for buffs, and a car of extremes was previously claimed sold up to 17¼c., though no local dealer will admit this trading and possibly the same referred to an outside dealer, the sale being made through a Chicago broker. Buffs are strongly held at 16½c., and the entire market shows strength, as evidenced by the sale noted above of 50-lb. and up at 16¼c., as heavy cows have not shown as much strength or activity as lighter weights. Last confirmed trading in buffs alone was at 16¼c., but dealers will not accept that figure today. Heavy cows range 16c. up to 16¼c., and even as high as 16½c. asked, but these do not show the activity of inquiry or strength in understone that exists in lighter weights, and yet heavy cows in connection with buffs in the sale of 50-lb. and up referred to above brought 16¼c. Extremes are closely sold up according to the claims of practically all local dealers, and they are getting in so few that they claim that they could not sell even at 17½c. for anything like prompt shipment. In consequence they are not offering until they get closer caught up on sales and learn more about what further prices they will have to

pay from country points. A late sale at 17¼c., probably by an outside dealer, is referred to above. Heavy steers are unchanged, ranging 16c. on last trading, probably mixed hair up to 16½@17c. asked for strictly short-haired stock. Bulls continue quiet, but remain closely sold up, and 14c. up to 14½c. asked.

CALFSKINS.—No change is noted in calf and kip. Supplies are small resulting in continued firmness, but the demand has been slow so far this week. Packers are now firmly talking 23c., and refusing to sell at less today. Extra choice Chicago city skins are held 21½c., and regular Chicago cities are quoted around 21c., with mixed Chicago and outside cities last sold 20½c. Outside cities, as to quality, range 20@21c., northern district countries 19@20c., and southern sections 18@18½c., all as to quality. Kips keep firm and closely sold up. Packers hold at 19c., cities around 18½c., mixed cities and countries 18c., and countries 17½c.

SHEEPSKINS.—The market is firm, with some small sales noted at 95c. for first half of September packer lambs and latter end of September salting up to \$1 being the full late prices asked. Last trading in August packer lambs was at 90c., and shearlings at 75c., while later takeoff shearlings are held from 80@85c. Outside city packer lambs range 80@90c. asked, and shearlings 65@75c., and some even asking higher. Countries: Lambs, 55@60c.; shearlings, 35@55c.

New York.

DRY HIDES.—No new developments are reported in common varieties. The balance of the Bogotas has not as yet been sold. The S. S. "Magdalena" brought 1,179 Bogotas, etc., and it is probable that a part of these were included in the sales of Bogotas noted recently at 33c. One of the principal buyers in the market of late has withdrawn, as present rates are above his views. Up to 34c. is being talked for Orinocos, but it is believed bids of 33½c. would be accepted if made. On the balance of the Bogotas from 33½@34c. is being asked. Central Americans are quoted at 32½c., and some sales were possibly made at this price.

CITY PACKER HIDES.—It is reported that one local packer has sold 3,500 June to middle of September spread native steers at 20c. This packer was reported to have previously sold these some time ago at 19¼c., but it is understood that the contract at that time was not fulfilled. No trading is noted in other varieties, and the market is well cleaned up to date.

COUNTRY HIDES.—The market continues quiet and buyers here are not disposed to pay the extreme rates asked in most quarters, and consequently few sales are effected. Occasionally, however, a dealer sells a lot of hides at under the prices generally asked probably after being unable to find an outlet at full rates. Although Pennsylvania dealers are quite generally asking from 16¼@16½c. for buffs one Pennsylvania dealer sold a car of all short-haired buffs here today at 16c.; the lot consisting of 1,200 hides. A lot of less than a car of all city butcher hides out of first salt, running all weights, and mostly cut throats, sold at 16½c. selected. A car of Michigan 25-lb. and up hides was offered here by a smaller dealer at 16¼c. selected f. o. b., and a bid was returned at this price, but no sale has been reported consummated as yet. Southern hides are being held at higher prices, but no sales have been noted here since the lot of two cars recently reported of far South hides at 14¼c. flat. Some all weight Souths are offered from northern section points at 15c. flat, and extremes held up to 15½c. flat, but buyers' views here are under these prices and no sales are noted.

CALFSKINS.—No sales of any sizable quantities are being reported here. Only one dealer is offering any New York Cities,

and this dealer has no light weights of account. Nominal prices on New York Cities are around \$1.80, \$2.30 and \$2.60, although more continues to be asked. It is reported that there are no lots of deacons of any size left in Canada, and the last sale of these of any account reported was a lot of about 10,000 deacons and veals together at \$1.23 for the deacons flat, and \$2 for the veals, running all weights but heavy average.

HORSE HIDES.—The market continues to show a strong and advancing tone. Butts 20 inches and up are held up to \$1.50, but with no sales of regular lots reported at this as yet and fronts are held stronger and higher with \$3.35 now quite generally being asked.

European.

Importers report trade at present as quiet in Russian calfskins, but some business is being done all the time, and while prices are holding firm some extreme rates recently talked are not reported being realized. Viatkas are considered quotable around 56c. selected, basis c. i. f. here, with some lots possibly obtainable down to 55c., and some might bring up to 57c. Heavy Palloy calf range all the way, from 35@38½c., as to lots, etc.

Boston.

There is a limited demand as well as limited offerings, and what few sales are being made of choice Ohio, etc., buffs are at 16½c., with another lot of 1,000 moved at this figure. Most bids are not over 17c. for extremes, although from 17¼@17½c. is asked.

SAVE YOUR NATIONAL PROVISIONER.

How often have you wished to refer to an article or an item of trade information or some valuable trade statistics in some back copy of The National Provisioner, only to find that copy lost or mutilated? You will be glad to know that we have succeeded at last in securing a really practical binder. You can now have your Provisioner in the form of a handsomely bound book ready to refer to at any time.

The new binder is the simplest made. The binding is as simple as sticking papers on an



ordinary file. Each binder holds 26 copies of The National Provisioner, or an entire volume. The binder has the appearance of a regular bound book. The cover is of cloth board and the name is stamped in gold. The binder makes a substantially-bound volume that will be a valuable part of your office equipment or a handy addition to your library.

By special arrangement with the manufacturers we can furnish you with this binder for only one dollar. Merely send us your name and address. Simply say: "Send me your binder. I enclose \$1." The binder will be sent promptly, all charges prepaid.

Chicago Section

Thaw's out! Sure Mike—a few dollars more.

One can imagine Bill Hohenzollern fondly handling his Krupp stock certificates, about now.

You'd never know baseball is the national game, from all you hear of it in Chicago just now.

Doesn't "thru" look cute in its bathing suit, and "tho" in its pajimmies? Gwan an' peddle yer papers!

To keep the boys on the farm. Move that lake front explosion and the Masonic Temple out into the country.

Its remained for Miss Asquith, daughter of the premier, to show John Bull what an old mollycoddle he is.

We may have no Poet Laurette or Pankhurst, but we have J. Ham and "Cap" Streeter. Just as good.

Now that Harry Lauder has taken up golf, we're convinced it's a cheap game. It's a bet he didn't buy the clubs.

"How to raise children," by an Old Maid, is no worse than "How to run a Packing-house," by a Retail Butcher!

John Bull oughter try wearing out a few hickory bar'l hoops on the hams of those militant sufferin'ets of his'n.

The "Scarlet Runner" would have been an appropriate name for the red coat the diners wore at the packers' bank-wet.

In view of the fact that the great majority of us don't know the currency situation from a silo, what's the use of worrying?

According to a number of people that Mulhall person would make a splendid foundation for an up-to-date Ananias club.

Kind of a draw between Thaw and Jerome, as to which is the most unpopular on the one hand and nauseating on the other.

Jever notis the orchestra usually penetrates some boiler shop piece of music through the soup course? There's a reason.

Swift & Company's sales of fresh beef in Chicago for the week ending Saturday, September 20, 1913, averaged 11.55 cents per pound.

"Life is a funny proposition after all!" Yes, indeed! But there's nothing very d. f. about living on the wage schedule of 1893 today is there?

That "ad" "Let the Gold Dust Twins do your work!" has done its work well. The idea fits any kind of business, and it's free. Make 'em know you!

There is quite a difference between famous and infamous, though some people and even towns don't seem to get wise to it, somehow. It's there, though, with both feet!

Physical culturists say the feminine form is improving. We cannot say as yet whether such is the case or not, but the opportunity to judge is getting better right along.

The sooner they put over that currency Willie, and put through that tariff law, the sooner we'll know whether—Canada is the coming country or not; that is, coming our way.

Some d. f. doctor said, "The auto is a good thing for catarrh." Musta meant if you run into an express train or joyride over a cliff, or some such similar abrupt finish stunt.

Tango hats for men, of the moldy variety (either way, hats or men, or both) are all the go this fall. We get evening papers at 11 a. m., with the previous evening's news in. Great is the press!

Special and important note.—Eddie Clabby failed to keep up the famousness of Hammond, which Koss Bell started, and Virginia Brooks left in a thriving condition when she jumped off the dock.

'Twas a dark and dismal night and as they sat around the camp fire Antonio unloaded

thusly: "'Twas a darker and dimmer night," etc., and "'Twas a darkest and dimmest night," etc. Aw, shut up!

There's still a chance, fellers. The country ain't gone to a hotter place by any means, nor won't. Don't worry; heed the doc; take plenty of fresh air, water and exercise, and little else—he needs the money!

The fire was blazing away fer fair, The whole dinged fire department was there, She ran out screamin' and tearin' her hair, An' howled—"Oh, save my—Teddy bear!" She had saved her diaphanous. She had it on!

'Twere better to remain in ignorance than to ask a policeman or sheriff where you are, to say nothing of the expense such information incurs. When Jack Johnson blew to the frog puddle he kept blowing and asked no fool questions.

Money talks—from 50-cent pieces up—and also works. Works all the time and never shirks. Most rich men have money working for them; in fact, money's work made their money. Now all you need is money—to work for you. Go to it!

Says a French poultryman: Feed your fowls cayenne pepper in their food and their plumage will become pink and turn scarlet an hour before a thunderstorm. Feed a man Ashland avenue or South Clark street booze and he'll turn most any old color any time.

That droning sound you hear is the grain animals—bulls, bears, goats, and lambs—singing "What will the harvest bee—bee—bee? What will the harvest bee?" What they mean, bee? We shall see—hee-hee, what the harvest will bee-hee-hee, when—Inglist returns.

"The Open Door." That's the idea. Make it a good wide open door, too. This "main entrance" thing ain't so worse. If you have anything to sell worth while, let every possible purchaser you can reach know it. Don't keep it a secret. "Ridgeway" it! that's the dope. "Hook 'er to the Publicity Cart."

H. C. GARDNER. P. A. LINDBERG.
GARDNER & LINDBERG
ENGINEERS
Mechanical, Electrical, Architectural
Specialties: Packing Plants, Cold Storage,
Manufacturing Plants, Power Installations,
Investigations.
1134 Marquette Bldg. CHICAGO

DAVID I. DAVIS & CO.
PACKING HOUSE EXPERTS
Manhattan Building, CHICAGO, ILL.
Designers of Packing Plants
Cold Storage and Warehouses

CHEMICAL & ENGINEERING CO.
CHEMISTS
Specializing in Packing House and Cottonseed
Oil products. Yearly contracts solicited.
608 So. Dearborn St. Chicago, Ill.

The Davidson Commission Company
519-520-521 Postal Telegraph Building CHICAGO, ILL.
BROKERS
Making a Specialty of MEATS, LARD AND
PACKINGHOUSE PRODUCTS of every descrip-
tion, COTTONSEED OIL AND PRODUCTS.

IF YOU ARE SELLERS, we have facilities for placing your offerings to best advantage in all directions.
IF YOU ARE BUYERS, give us a call. If we have no suitable offerings in hand we will find what you want.

TIN PLATING

Federal and State laws require copper kettles, coils, pipe, valves, tanks and other apparatus used in the preparation of food products tinned.

Write us for prices.

C. Doering & Son, Inc.
Lake and Sheldon Sts., Chicago, Ill.

WE ALSO MAKE

a complete line of all kinds of tanks, churns, vats, light and heavy sheet metal work for the packing house, butterine and oleo factory.

MERIT!!!

That is what makes our SUPREME ANHYDROUS AMMONIA

tower way above all others.

It is a product of which we are justly proud.
Did you ever hear of anyone change after once using

ANHYDROUS **SUPREME** AMMONIA

"EVERY OUNCE ENERGIZES"

Drop a line for a demonstration.

Supreme Means { Less Power—Less Coal—Less Expense.
More Refrigeration—More Satisfaction—More Efficiency.

NEW YORK
35th St. & 11th Ave.
Provision Department

MORRIS & COMPANY

CHICAGO
U. S. YARDS

A Jew and an Irishman landed at the Pearly Gates simultaneously. Mike knocked and Pete answered. "Like to get in!" says Mike. "Gotta ride in!" says Pete. "Lemme try," says Ikey. Same result. In convention outside, and May, at that. "Now, what'll we do?" says Mike. "Vell," says Ikey, "ve got neider horse nor bi-cycle. Vat you say if I climb on your back and ve both get in?" "Agreed!" says Mike, and they tried it. Pete sized 'em up, and says he to Ikey: "Tie your mount outside and come in." Mike qualified then and there for the other place!

Now and again some smart Aleck lawyer gets a jolt. A little story about one reads as follows: During the trial a "smoke" was called on the stand as witness, and the question of "shootin' craps" came up. The "coon" was rather dilatory explaining the mode of procedure in shootin' craps, and the lawyer questioning him roared: "You tell the jury just how you deal craps, without any more nonsense!" "Huh?" said the coon. The lawyer repeated the order in even a louder and more authoritative tone. The "smoke" stood with his mouth agape a moment, then in a panicky voice said: "Fo' Gawd's sake, lemme outa here. Fust thing ah knows dat man'll be asking me how to drink a sandwich!"

A moving picture of a fish story, in one reel, entitled, "How They Originate": "Yes, sir! Joe, we (make it the same, Mike) got up (here's a go!) early that mornin', an' while I was (nix on that, Joe! My buy this time) gettin' the tackle (Happy days!) ready Bill shoved the boat (same, I guess, Mike)

out (here's bumps!), and in we clum. (Fizz? Sure!) It wuz about 2:30, I should judge (Here's hopin'!), an' kind-a hazy (Guess I'll trp a rickey, too). Just the kind of (L'er go!) a mornin' fer 'em to bite, an' they sure (Split a bottle? Sure!) bit. BIT? (S'go.) Well now! Lo, Dave! I wuz just tellin' Joe (two bourbons an' a beer, Mike) 'bout Bill an' (Here's fun!) we up to Fox Lake fishin'. (Split two three ways, Mike.) Well, as I wuz sayin'. (d' health) talk about bitin'! Why, I never saw anything like it! (Two bourbons an' a beer, Mike). Jee-roo-sa-lem! (Here's to yuh!) Bite! Did they bite? (Three rickies, Mike.) Say, it was (Let'er went!) a crime. Lo, Hen! Get in! I wuz just tellin' (Four fizz, Mike) the lads about me an' (Like pourin' it down a sink, eh?) Bill up to (Two gingerale high, a Bud an' d' straight, Mike) the lake last week. (Taste's like another, huh?) Gotta go, Joe? Well, s'long! You can finish it now, you gotta good start!"

Here is a ready-made speech for somebody: "Gentlemen, there is an immense, almost incredible saving effected in labor; the most highly desirable results are obtained; the apex of success is reached, and the world is ours—by and through the use of up-to-date machinery, ideas and formulas, which are easily attainable. As the old potherb says, 'Ceek and ye shall find; knock (these days it is "push the button") and it shall be opened unto you.' There you are, knock!—no, no! Push!—that's the dope. That reminds me of another provender, 'He that pushes pusheth and is never pushed'—perhaps. As Uptub

would say, 'He that believeth my way shall have a good crop of cabbage! But he that doth not shall have long stalks and straggling roots, and not many of them.' This is a pro and con—no, no! Pro and ag-gressive age. Every cent counts; every moment is fraught ("fraught" looks like the devil, but it's good, all right) with riches (and sometimes brick-bats); make no false moves—lost motion is reprehensible, and no motion at all is dangerous. Gentlemen, I thank you!" (Lewd applause.)

G. F. SULZBERGER ENGAGED.

An interesting engagement recently announced is that of Miss Edith Rosenwald to Mr. Germon F. Sulzberger. Miss Rosenwald is the daughter of Julius Rosenwald, the financier, and president of Sears, Roebuck & Company, and is well known in Chicago and New York society.

Mr. Sulzberger, who with his brother, M. J. Sulzberger, are the active heads of the institution bearing their name, is one of the young giants of the packing industry. After leaving Princeton University he spent a number of years in the Chicago plant of the S. & S. Company, mastering every phase of the business. As Vice-President and General Manager he has shown marked executive ability, as is evidenced by the growth of the S. & S. Company for the past few years.

Although having his headquarters in Chicago, Mr. Sulzberger made his home principally in New York. He has traveled abroad quite extensively and not very long ago returned from a trip to South America.

CHICAGO LIVE STOCK

RECEIPTS.			
	Cattle.	Hogs.	Sheep.
Monday, Sept. 15.....	16,677	919	32,931
Tuesday, Sept. 16.....	2,853	771	11,978
Wednesday, Sept. 17.....	15,987	1,098	18,439
Thursday, Sept. 18.....	4,384	454	18,519
Friday, Sept. 19.....	1,410	292	15,443
Saturday, Sept. 20.....	474	35	12,302
Total last week.....	41,785	3,509	109,612
Previous week.....	33,583	4,323	146,716
Cor. time, 1912.....	80,133	5,940	99,833
Cor. time, 1911.....	60,372	8,448	100,074

SHIPMENTS.			
	Cattle.	Hogs.	Sheep.
Monday, Sept. 15.....	5,147	188	10,510
Tuesday, Sept. 16.....	1,884	119	4,509
Wednesday, Sept. 17.....	4,174	81	6,588
Thursday, Sept. 18.....	3,096	29	5,218
Friday, Sept. 19.....	1,296	143	5,587
Saturday, Sept. 20.....	73	7	4,067
Total last week.....	16,149	567	37,070
Previous week.....	22,232	657	44,178
Cor. time, 1912.....	15,849	531	18,470
Cor. time, 1911.....	22,544	713	14,170

CHICAGO TOTAL RECEIPTS LIVESTOCK.

	Cattle.	Hogs.	Sheep.
Year to Sept. 20, 1913.....	1,737,058	5,237,006	3,676,688
Same period, 1912.....	1,845,977	5,320,455	3,818,854

Combined receipts of hogs at eleven points:

Week ending Sept. 20, 1913.....	352,000
Previous week.....	434,000
Cor. week, 1912.....	324,000
Cor. week, 1911.....	330,000
Total year to date.....	17,459,000
Same period, 1912.....	17,993,000

Receipts at six points (Chicago, Kansas City, Omaha, St. Louis, St. Joseph, Sioux City) as follows:

	Cattle.	Hogs.	Sheep.
Week to Sept. 20, 1913.....	186,800	246,000	497,200
Week ago.....	187,000	331,600	437,600
Year ago.....	205,300	215,800	380,100
Two years ago.....	198,800	288,100	383,500

CHICAGO PACKERS' HOG SLAUGHTER.

Week ending Sept. 20, 1913:			
	Cattle.	Hogs.	Sheep.
Armour & Co.....	18,900		
Swift & Co.....	12,300		
S. & S. Co.....	5,600		
Morris & Co.....	5,600		
Anglo-American.....	4,600		
Boyd-Lunham.....	3,000		
Hammond.....	3,900		
Western P. Co.....	5,600		
Roberts & Oake.....	3,000		
Miller & Hart.....	2,200		
Independent P. Co.....	5,300		
Brennan P. Co.....	3,600		
Others.....	1,500		
Total.....	72,300		
Previous week.....	93,900		
1912.....	92,000		
1911.....	91,000		
Total year to date.....	3,953,000		
Same period last year.....	4,010,000		

WEEKLY AVERAGE PRICE OF LIVE STOCK.

	Cattle.	Hogs.	Sheep.	Lambs.
This week.....	\$8.50	\$8.35	\$4.35	\$7.05
Previous week.....	8.20	8.25	4.30	7.25
Cor. week, 1912.....	8.10	8.29	4.25	7.10
Cor. week, 1911.....	6.85	6.91	4.00	5.90
Cor. week, 1910.....	6.75	6.79	4.25	7.00

CATTLE.			
	Steers.	Good to choice.	Butcher.
Steers, good to choice.....	\$8.40	\$9.30	
Steers, fair to good.....	7.50	8.40	
Distillery steers.....	8.60	9.10	
Interior steers.....	7.00	7.50	
Range steers.....	8.00	8.50	
Yearlings, good to choice.....	8.25	9.30	
Yearlings, fair to good.....	7.25	8.25	
Canner bulls.....	3.50	4.50	
Stockers.....	6.00	7.35	
Feeding steers.....	6.75	7.75	
Medium to good beef cows.....	5.25	6.00	
Fair to good heifers.....	7.75	8.50	
Good to choice cows.....	5.75	7.25	
Common to good cutters.....	4.25	4.75	
Butcher bulls.....	7.00	7.50	
Bologna bulls.....	5.75	6.25	
Good to choice calves.....	10.50	11.75	
Fair to good calves.....	9.00	10.50	

HOGS.			
	Choice light.	100 to 190 lbs.	190 to 290 lbs.
Choice light, 100 to 190 lbs.....	\$9.00	\$9.25	
Light mixed, 190 to 290 lbs.....	8.50	8.10	
Prime light butchers, 200 to 290 lbs.....	8.80	8.15	
Medium butchers, 230 to 270 lbs.....	8.75	8.05	
Prime heavy butchers, 250 to 300 lbs.....	8.50	8.95	
Heavy packing, 280 lbs. and up.....	7.05	8.15	
Mixed packing, 200 lbs. and up.....	7.00	8.40	
Pigs.....	6.00	8.00	
*Stags.....	8.00	8.90	
Boars.....	2.00	3.00	

*All stags subject to 80 lbs. dockage.

SHEEP.			
	Native lambs.	Range lambs.	Range yearlings.
Native lambs.....	\$6.75	\$7.35	
Range lambs.....	7.00	7.40	
Range yearlings.....	5.15	5.75	
Range ewes.....	4.00	4.40	
Range wethers.....	4.20	4.70	
Breeding ewes.....	4.50	5.00	
Feeding lambs.....	6.25	6.50	
Feeding yearlings.....	5.00	5.50	
Feeding wethers.....	4.00	4.60	
Feeding ewes.....	3.50	4.00	
Native wethers.....	4.15	5.60	
Native ewes.....	4.00	4.40	
Native yearlings.....	5.00	5.75	

CHICAGO PROVISION MARKET

Range of Prices.

SATURDAY, September 20, 1913.

	Open.	High.	Low.	Close.
PORK—(Per bbl.)—				
September.....	\$.....	\$.....	\$.....	\$21.75
January.....	20.12½	20.12½	19.92½	20.00
May.....	20.20	20.25	20.10	20.12½
LARD—(Per 100 lbs.)—				
September.....	11.17½	11.17½	11.12½	11.15
October.....	11.20	11.20	11.12½	11.17½
January.....	11.07½	11.10	10.97½	11.02½
May.....	11.20	11.20	11.12½	11.15
RIBS—(Boxed, 25c. more than loose)—				
September.....	11.12½	11.12½	11.12½	11.12½
October.....	11.15	11.15	11.07½	11.12½
January.....	10.60	10.60	10.52½	10.55
May.....	10.70	10.72½	10.67½	10.67½

MONDAY, SEPTEMBER 22, 1913.

PORK—(Per bbl.)—				
September.....	21.75	21.80	21.75	21.80
January.....	20.15	20.20	20.15	20.15
May.....	20.32½	20.40	20.32½	20.32½
LARD—(Per 100 lbs.)—				
September.....	11.15	11.15	11.10	11.10
October.....	11.22½	11.25	11.22½	11.22½
January.....	11.05	11.10	11.05	11.07½
May.....	11.20	11.22½	11.20	11.20
RIBS—(Boxed, 25c. more than loose)—				
September.....	11.22½	11.25	11.20	11.22½
October.....	11.22½	11.25	11.20	11.25
January.....	10.60	10.65	10.60	10.62½
May.....	10.77½	10.80	10.70	10.75

TUESDAY, SEPTEMBER 23, 1913.

PORK—(Per bbl.)—				
September.....	21.75	21.80	21.75	21.80
January.....	20.12½	20.10	19.97½	19.97½
May.....	20.27½	20.30	20.15	20.17½
LARD—(Per 100 lbs.)—				
September.....	11.15	11.15	11.10	11.10
October.....	11.15	11.15	11.10	11.10
January.....	11.22½	11.22½	11.20	11.20
May.....	11.02½	11.05	10.95	10.97½
RIBS—(Boxed, 25c. more than loose)—				
September.....	11.15	11.15	11.10	11.10
October.....	11.20	11.20	11.07½	11.10
January.....	10.57½	10.60	10.50	10.52½
May.....	10.72½	10.72½	10.62½	10.65

WEDNESDAY, SEPTEMBER 24, 1913.

PORK—(Per bbl.)—				
September.....	21.80	21.85	21.80	21.85
January.....	19.92½	19.95	19.85	19.85
May.....	20.07½	21.12½	20.05	20.05
LARD—(Per 100 lbs.)—				
September.....	11.05	11.05	11.05	11.05
October.....	11.05	11.07½	11.02½	11.05
January.....	10.92½	10.97½	10.92½	10.92½
May.....	11.07½	11.10	11.05	11.05
RIBS—(Boxed, 25c. more than loose)—				
September.....	11.00	11.07½	11.00	11.07½
October.....	11.02½	11.07½	11.02½	11.05
January.....	10.50	10.50	10.47½	10.47½
May.....	10.62½	10.65	10.60	10.60

THURSDAY, SEPTEMBER 25, 1913.

PORK—(Per bbl.)—				
September.....	21.75	21.80	21.75	21.80
January.....	19.85	19.87½	19.75	19.82½
May.....	20.00	20.05	19.92½	20.02½
LARD—(Per 100 lbs.)—				
September.....	11.00	11.00	11.00	11.00
October.....	11.05	11.10	10.97½	10.97½
January.....	10.95	10.95	10.85	10.90
May.....	11.07½	11.10	11.00	11.02½
RIBS—(Boxed, 25c. more than loose)—				
September.....	11.00	11.05	10.97½	11.00
October.....	11.05	11.10	10.97½	11.00
January.....	10.50	10.50	10.42½	10.47½
May.....	10.62½	10.62½	10.55	10.60

FRIDAY, SEPTEMBER 26, 1913.

PORK—(Per bbl.)—				
September.....	19.90	19.92	19.82	19.82½
January.....	20.02	20.10	20.02	20.02½
LARD—(Per 100 lbs.)—				
September.....	11.10	11.17½	11.10	11.10
October.....	10.90	10.97½	10.90	10.90
January.....	11.02½	11.10	11.02½	11.05
RIBS—(Boxed, 25c. more than loose)—				
September.....	11.02½	11.05	11.00	11.00
October.....	10.50	10.52½	10.42½	10.42½
January.....	10.60	10.62½	10.52½	10.52½

†Bld. †Askd.

CHICAGO RETAIL FRESH MEATS.

(Corrected weekly by Pollack Bros., 41st and Halsted Streets.)

Beef.			
Native Rib Roast.....	20	@20	
Native Sirloin Steaks.....	22	@25	
Native Porterhouse Steaks.....	25	@32	
Native Pot Roasts.....	15	@18	
Rib Roasts from light cattle.....	13	@17	
Beef Stew.....	12	@14	
Boneless Corned Briskets, Native.....	16	@16	
Corned Rumps, Native.....	16	@16	
Corned Ribs.....	12½	@12½	
Corned Flanks.....	10	@10	
Round Steaks.....	15	@23	
Round Roasts.....	15	@18	
Shoulder Steaks.....	15	@17	
Shoulder Roasts.....	15	@16	
Shoulder Neck End, Trimmed.....	12½	@12½	
Rollad Roast.....	16	@18	
Lamb.			
Hind Quarters, fancy.....	18	@20	
Fore Quarters, fancy.....	12½	@15	
Legs, fancy.....	20	@22	
Stew.....	12½	@12½	
Chops, shoulder, per lb.....	16	@16	
Chops, rib and loin, per lb.....	20	@20	
Chops, French, each.....	15	@15	
Mutton.			
Legs.....	14	@16	
Stew.....	8	@10	
Shoulders.....	12	@12	
Hind Quarters.....	10	@10	
Fore Quarters.....	18	@20	
Rib and Loin Chops.....	12½	@14	
Pork.			
Pork Loin.....	20	@22	
Pork Chops.....	22	@24	
Pork Shoulders.....	15	@15	
Pork Tenderloins.....	18	@18	
Pork Butts.....	18	@18	
Spare Ribs.....	12½	@12½	
Hocks.....	11	@11	
Pigs' Heads.....	8	@8	
Leaf Lard.....	13	@13	
Veal.			
Hind Quarters.....	20	@22	
Fore Quarters.....	14	@16	
Legs.....	20	@22	
Breasts.....	14	@16	
Shoulders.....	16	@18	
Cutlets.....	20	@20	
Rib and Loin Chops.....	12½	@14	
Butchers' Offal.			
Suet.....	7	@7	
Tallow.....	4	@4	
Bones, per cwt.....	12	@12	
Calveskins, 8 to 15 lbs.....	20	@20	
Calveskins, under 8 lbs. (deacon's).....	20	@20	
Klips.....	16	@16	

AUTOMATIC
IMPROVED

CHICAGO MARKET PRICES

WHOLESALE FRESH MEATS.

Carcass Beef.

Prime native steers	13 1/4 @ 13 3/4
Good native steers	12 1/4 @ 13
Native steers, medium	12 1/4 @ 12 1/2
Helpers, good	12 1/4 @ 12 1/2
Cows	11 1/4 @ 11 1/2
Hind Quarters, choice	11 1/2 @ 11 3/4
Fore Quarters, choice	11

Beef Cuts.

Cow Chunks	9 @ 9 1/2
Steer Chunks	11 @ 11 1/2
Boneless Chunks	12 @ 12 1/2
Medium Plates	8 1/4 @ 8 1/2
Steer Plates	8 1/4 @ 8 1/2
Cow Rounds	10 @ 10 1/2
Steer Rounds	13 @ 13 1/2
Cow Loins	13 @ 13 1/2
Steer Loins, Heavy	19 @ 19 1/2
Beef Tenderloins, No. 1	34 @ 34 1/2
Beef Tenderloins, No. 2	30 @ 30 1/2
Strip Loins	13 1/4 @ 13 1/2
Shin Butts	17 @ 17 1/2
Shoulder Clods	13 1/4 @ 13 1/2
Balls	15 1/4 @ 15 1/2
Rump Butts	12 @ 12 1/2
Trimblings	7 @ 7 1/2
Shank	9 @ 9 1/2
Cow Ribs, Common, Light	9 @ 9 1/2
Cow Ribs, Heavy	14 @ 14 1/2
Steer Ribs, Light	15 1/4 @ 15 1/2
Steer Ribs, Heavy	16 1/4 @ 16 1/2
Loin Ends, steer, native	17 1/4 @ 17 1/2
Loin Ends, cow	15 @ 15 1/2
Hanging Tenderloins	12 @ 12 1/2
Flank Steak	15 @ 15 1/2
Hind Shanks	6 @ 6 1/2

Beef Offal.

Brains, per lb.	7 @ 7 1/2
Hearts	9 @ 9 1/2
Tongues	17 1/4 @ 17 1/2
Sweetbreads	22 @ 22 1/2
Ox Tail, per lb.	8 @ 8 1/2
Fresh Tripe, plain	4 @ 4 1/2
Fresh Tripe, H. C.	6 @ 6 1/2
Brains	9 @ 9 1/2
Kidneys, each	7 1/4 @ 7 1/2

Veal.

Heavy Carcass, Veal	11 @ 11 1/4
Light Carcass	16 @ 16 1/2
Good Carcass	17 1/4 @ 17 1/2
Good Saddle	18 @ 18 1/2
Medium Racks	14 @ 14 1/2
Good Racks	15 @ 15 1/2

Veal Offal.

Brains, each	7 1/4 @ 7 1/2
Sweetbreads	60 @ 60 1/2
Plucks	60 @ 60 1/2
Heads, each	25 @ 25 1/2

Lambs.

Good Caul	12 @ 12 1/2
Round Dressed Lambs	14 @ 14 1/2
Saddles, Caul	14 @ 14 1/2
B. D. Lamb Racks	11 1/4 @ 11 1/2
Caul Lamb Racks	11 @ 11 1/2
B. D. Lamb Saddle	16 1/4 @ 16 1/2
Lamb Fries, per lb.	18 @ 18 1/2
Lamb Tongues, each	4 @ 4 1/2
Lamb Kidneys, each	1 1/4 @ 1 1/2

Mutton.

Medium Sheep	8 @ 8 1/2
Good Sheep	9 @ 9 1/2
Medium Saddle	10 @ 10 1/2
Good Saddle	10 @ 10 1/2
Good Racks	8 @ 8 1/2
Medium Racks	7 1/4 @ 7 1/2
Mutton Legs	11 @ 11 1/2
Mutton Loins	7 @ 7 1/2
Mutton Stew	6 @ 6 1/2
Sheep Tongues, each	2 1/4 @ 2 1/2
Sheep Heads, each	10 @ 10 1/2

Fresh Pork, Etc.

Dressed Hogs	13 @ 13 1/2
Pork Loins	18 1/4 @ 18 1/2
Leaf Lard	11 1/4 @ 11 1/2
Tenderloins	32 @ 32 1/2
Spare Ribs	9 @ 9 1/2
Butts	15 1/4 @ 15 1/2
Hocks	9 @ 9 1/2
Trimblings	11 @ 11 1/2
Extra Lean Trimblings	13 @ 13 1/2
Tails	8 @ 8 1/2
Snouts	5 1/4 @ 5 1/2
Pigs' Feet	4 @ 4 1/2
Pigs' Heads	9 @ 9 1/2
Blade Bones	9 @ 9 1/2
Blade Meat	10 @ 10 1/2
Cheek Meat	9 @ 9 1/2
Hog livers, per lb.	2 1/4 @ 2 1/2
Neck Bones	12 1/4 @ 12 1/2
Skinned Shoulders	13 @ 13 1/2
Pork Hearts	9 @ 9 1/2
Pork Kidneys, per lb.	4 @ 4 1/2
Pork Tongues	10 @ 10 1/2
Slip Bones	6 @ 6 1/2
Tail Bones	6 @ 6 1/2
Brains	6 @ 6 1/2
Backfat	11 1/4 @ 11 1/2
Hams	16 @ 16 1/2
Calas	13 @ 13 1/2
Bellies	17 1/4 @ 17 1/2
Shoulders	12 1/4 @ 12 1/2

SAUSAGE.

Columbia Cloth Bologna	12 1/4 @ 12 1/2
Bologna, large, long, round, in casings	12 @ 12 1/2

Choice Bologna	14 @ 14 1/2
Frankfurters	12 1/4 @ 12 1/2
Blood, Liver and Headcheese	11 @ 11 1/2
Tongue	14 1/4 @ 14 1/2
Minced Sausage	17 @ 17 1/2
Luncheon Sausage, cloth paraffine	17 @ 17 1/2
New England Sausage	17 @ 17 1/2
Compressed Luncheon Sausage	17 @ 17 1/2
Special Compressed Ham	17 @ 17 1/2
Berliner Sausage	15 1/4 @ 15 1/2
Boneless Butts in casings	25 @ 25 1/2
Oxford Butts in casings	19 1/4 @ 19 1/2
Polish Sausage	13 @ 13 1/2
Garlic Sausage	13 @ 13 1/2
Country Smoked Sausage	13 @ 13 1/2
Farm Sausage	16 @ 16 1/2
Pork Sausage, bulk or link	12 1/4 @ 12 1/2
Pork Sausage, short link	13 @ 13 1/2
Boneless Pigs' Feet	10 @ 10 1/2
Luncheon Roll	16 1/4 @ 16 1/2
Deliessen Loaf	17 @ 17 1/2
Jellied Roll	17 @ 17 1/2

Summer Sausage.

Best Summer, H. C. (old)	27 @ 27 1/2
German Salami (new)	24 @ 24 1/2
Italian Salami	27 @ 27 1/2
Holsteiner	19 @ 19 1/2
Mettwurst, New	20 @ 20 1/2
Farmer	21 @ 21 1/2

Sausage in Oil.

Smoked Sausage, 1-50	30.00 @ 30.00
Smoked Sausage, 2-20	5.50 @ 5.50
Bologna, 1-50	5.50 @ 5.50
Bologna, 2-20	5.00 @ 5.00
Frankfurt, 1-50	6.00 @ 6.00
Frankfurt, 2-20	5.50 @ 5.50

VINEGAR PICKLED GOODS.

Pickled Pigs' Feet, in 200-lb. barrels	10.00 @ 10.00
Pickled Plain Tripe, in 200-lb. barrels	8.35 @ 8.35
Pickled H. C. Tripe, in 200-lb. barrels	10.30 @ 10.30
Pickled Ox Lips, in 200-lb. barrels	15.50 @ 15.50
Pickled Pigs' Snouts, in 200-lb. barrels	15.50 @ 15.50
Lamb Tongues, Short Cut, barrels	34.50 @ 34.50

CORNED, BOILED AND ROAST BEEF.

1 lb., 2 doz. to case	Per doz. \$2.05
2 lbs., 1 or 2 doz. to case	3.85 @ 3.85
6 lbs., 1 doz. to case	15.50 @ 15.50
14 lbs., 1/2 doz. to case	34.00 @ 34.00

EXTRACT OF BEEF.

2-oz. jars, 1 doz. in box	3.25 @ 3.25
4-oz. jars, 1 doz. in box	6.25 @ 6.25
8-oz. jars, 1/2 doz. in box	11.50 @ 11.50
16-oz. jars, 1/2 doz. in box	22.50 @ 22.50
2, 5 and 10-lb. tins	\$1.50 per lb.

BARRELED BEEF AND PORK.

Extra Plate Beef, 200-lb. barrels	17.00 @ 17.00
Plate Beef	17.00 @ 17.00
Prime Mess Beef	17.00 @ 17.00
Extra Mess Beef	17.00 @ 17.00
Beef Hams (220 lbs. to bbl.)	22.25 @ 22.25
Rump Butts	23.50 @ 23.50
Mess Pork, old	20.75 @ 20.75
Clear Fat Backs	25.00 @ 25.00
Family Back Pork	25.00 @ 25.00
Bean Pork	16.50 @ 16.50

LARD.

Pure leaf, kettle rendered, per lb., tes.	13 1/4 @ 13 1/2
Pure lard	12 1/4 @ 12 1/2
Lard substitutes, tes.	10 @ 10 1/2
Lard, compound	9 @ 9 1/2
Cooking oil, per gal., in barrels	68 @ 68 1/2
Cooks' and bakers' shortening, tubs	12 1/4 @ 12 1/2
Barrels, 1/2 c. over terces; half barrels, 1/4 c. over terces; tubs and pails, 10 to 80 lbs., 1/4 to 1 c. over terces	

BUTTERINE.

1 to 6, natural color, solids, f. o. b. Chicago	15 1/4 @ 15 1/2
---	-----------------

DRY SALT MEATS.

(Boxed. Loose are 1/4 c. less.)	
Clear Bellies, 14 @ 16 avg.	13 1/4 @ 13 1/2
Clear Bellies, 18 @ 20 avg.	13 1/4 @ 13 1/2
Rib Bellies, 18 @ 20 avg.	13 1/4 @ 13 1/2
Fat Backs, 12 @ 14 avg.	10 @ 10 1/2
Regular Plates	10 1/4 @ 10 1/2
Clear Plates	9 1/4 @ 9 1/2
Butts	8 1/4 @ 8 1/2
Bacon meats, 1/4 c. to 1 c. more.	

WHOLESALE SMOKED MEATS.

Hams, 12 lbs., avg.	18 @ 18 1/2
Hams, 16 lbs., avg.	17 1/4 @ 17 1/2
Skinned Hams	18 1/4 @ 18 1/2
Calas, 4 @ 6 lbs., avg.	11 @ 11 1/2
Calas, 6 @ 12 lbs., avg.	10 1/4 @ 10 1/2
New York Shoulders, 8 @ 12 lbs., avg.	13 1/4 @ 13 1/2
Breakfast Bacon, fancy	25 @ 25 1/2
Wide, 10 @ 12 avg., and strip, 5 @ 6 avg.	17 1/4 @ 17 1/2
Wide, 6 @ 8 avg., and strip, 3 @ 4 avg.	19 1/4 @ 19 1/2
Rib Bacon, wide, 8 @ 12, strip, 4 @ 6 avg.	14 @ 14 1/2
Dried Beef Sets	29 @ 29 1/2
Dried Beef Inside	31 @ 31 1/2
Dried Beef Knuckles	30 @ 30 1/2
Dried Beef Outside	28 1/4 @ 28 1/2
Regular Rolled Hams	26 @ 26 1/2
Smoked Rolled Hams	27 @ 27 1/2
Boiled Calas	18 1/4 @ 18 1/2
Cooked Loin Rolls	28 @ 28 1/2
Cooked Rolled Shoulders	18 1/4 @ 18 1/2

SAUSAGE CASINGS.

F. O. B. CHICAGO.

Rounds, per set	11 @ 11 1/2
Export Rounds	22 @ 22 1/2
Middles, per set	78 @ 78 1/2
Beef bungs, per piece	19 @ 19 1/2
Beef weasands	6 1/4 @ 6 1/2
Beef bladders, small, per doz.	45 @ 45 1/2
Hog casings, free of salt	70 @ 70 1/2
Hog middles, per set	16 @ 16 1/2
Hog bungs, export	7 @ 7 1/2
Hog bungs, large mediums	10 @ 10 1/2
Hog bungs, prime	7 @ 7 1/2
Hog bungs, narrow	5 @ 5 1/2
Imported wide sheep casings	80 @ 80 1/2
Imported medium wide sheep casings	70 @ 70 1/2
Imported medium sheep casings	60 @ 60 1/2
Hog stomachs, per piece	4 @ 4 1/2

FERTILIZERS.

Dried blood, per unit	2.90 @ 2.95
Hoof meal, per unit	2.50 @ 2.55
Concentrated tankage	2.40 @ 2.45
Ground tankage, 12%	2.75 @ 2.80
Ground tankage, 11%	2.75 @ 2.80
Ground tankage, 8 and 25%	2.70 @ 2.75
Crushed tankage, 9 and 20%	2.50 @ 2.55
Ground tankage, 6 1/2 and 30%	20.50 @ 21.00
Ground rawbone, per ton	24.00 @ 24.50
Ground steam bone, per ton	20.00 @ 20.50
Unground tankage, per ton less than ground	50c.

HORNS, HOOFS AND BONES.

Horns, No. 1, 65 @ 70 lbs., aver.	250.00 @ 275.00
Horns, black, per ton	24.50 @ 25.50
Horns, striped, per ton	33.00 @ 34.00
Horns, white, per ton	40.00 @ 41.00
Flat shin bones, 40 lbs. av., per ton	70.00 @ 75.00
Round shin bones, 38-40 lbs. av., per ton	75.00 @ 80.00
Round shin bones, 50-52 lbs. av., per ton	80.00 @ 85.00
Long thigh bones, 90-95 lbs. av., per ton	80.00 @ 85.00
Skulls, jaws and knuckles, per ton	27.50 @ 29.00

LARD.

Prime steam, cash	11.07 1/2 @ 11.07 1/2
Prime steam, loose	10.65 @ 10.65
Leaf	10 1/4 @ 10 1/2
Compound	9 1/4 @ 9 1/2
Neutral lard, No. 1	11 1/4 @ 11 1/2
Neutral lard, No. 2	11 @ 11 1/2

STEARINES.

Prime oleo	9 1/4 @ 9 1/2
Oleo, No. 2	8 1/4 @ 8 1/2
Mutton	8 1/4 @ 8 1/2
Tallow	7 1/4 @ 7 1/2
Grease, yellow	5 1/4 @ 5 1/2
Grease, A white	8 1/4 @ 8 1/2

OILS.

Lard oil, extra, winter strained, tierces	71 @ 73
Extra lard oil	60 @ 62
Extra No. 1 lard oil	60 @ 62
No. 1 lard oil	53 @ 55
No. 2 lard oil	52 @ 54
Oleo oil, extra	11 1/4 @ 11 1/2
Oleo oil, No. 2	10 1/4 @ 10 1/2
Oleo stock	9 1/4 @ 9 1/2
Neatsfoot oil, pure, bbls.	68 @ 72
Acidless tallow oils, bbls.	62 @ 64
Corn oil, loose	5.70 @ 5.75
Horse oil	6 1/4 @ 6 1/2

TALLOW.

Edible	8 @ 8 1/2
Prime city	7 1/4 @ 7 1/2
No. 1 Country	6 1/4 @ 6 1/2
Packers' Prime	7 1/4 @ 7 1/2
Packers' No. 1	6 1/4 @ 6 1/2
Packers' No. 2	5 1/4 @ 5 1/2
Renderers' No. 1	6 1/4 @ 6 1/2

GREASES.

White, choice	8 1/4 @ 8 1/2
White, "A"	6 1/4 @ 6 1/2
White, "B"	6 @ 6 1/2
Bone	5 1/4 @ 5 1/2
Crackling	5 1/4 @ 5 1/2
Home	5 1/4 @ 5 1/2
Yellow	4 1/4 @ 4 1/2
Glue Stock	5 1/4 @ 5 1/2
Garbage grease	3 1/4 @ 3 1/2
Glycerine, C. P.	19 1/4 @ 19 1/2
Glycerine, dynamite	20 1/4 @ 20 1/2
Glycerine, crude soap	13 @ 13 1/2
Glycerine, candle	15 @ 15 1/2

COTTONSEED OILS.

P. S. Y., loose	51 1/4 @ 52
P. S. Y., soap grade	50 @ 51
Soap stock, bbls., coren.	62 @ 65 f. a.
Soap stock, loose, reg., 50% r. f. a.	1.40 @ 1.50

COOPERAGE.

Ash pork barrels	82 @ 85
Oak pork barrels	1.02 @ 1.05
Lard tierces	1.22 @ 1.27

CURING MATERIALS.

Refined saltpetre	5 1/4 @ 6 1/4
Boric acid, crystal to powdered	7 @ 7 1/4
Borax	4 @ 4 1/4
Sugar—	
White, clarified	4 @ 4 1/4
Plantation, granulated	4 1/4 @ 4 1/2
Yellow, clarified	4 1/4 @ 4 1/2
Salt—	
Ashton, in bags, 224 lbs.	32.25 @ 32.50
English packing, in bags, 224 lbs.	1.45 @ 1.50
Michigan, granulated, car lots, per ton	3.25 @ 3.50
Michigan, medium, car lots, per ton	3.75 @ 4.00
Casing salt, bbls., 250 lbs., 2x @ 3x	1.40 @ 1.50

LIVE STOCK MARKETS

CHICAGO

(Special Letter to The National Provisioner from the National Livestock Commission Co.)

Union Stock Yards, Chicago, Sept. 24.

We had a strong and active market on Monday, a run of 19,845 cattle, including about 3,500 Westerns, being well within trade requirements, and many sales were on a strong to 10c. higher basis. A new top of \$9.40 per cwt. was made on a drove of prime 1,396-lb. beefs, while long yearlings averaging 1,133 lbs. sold at \$9.35, and yearlings averaging 1,095 lbs. at \$9.30 per cwt. Bulk of the choice handy and heavy-weight cattle sold at \$9@9.25; good to choice kinds, \$8.65 @9; medium to good grades, \$8.35@8.60, with fair to medium killers, \$7.75@8.35. Tuesday's run of 5,500 cattle included about 2,000 Westerns, and the very moderate supply of native steers met with a demand that was fully up to Monday's general level of values. Wednesday's run of 18,500 cattle included about 3,000 Westerns, and the receipts for the first three days of the week totaled 44,000 head, as compared with 36,000 for the same period a week ago.

A well-sustained market at the highest point of the season aptly describes the trade on butcher stock. In fact, in the opening hours of Monday's session urgent orders stimulated an upward trend to the trade, and we sold all of our cattle 10@15c. per cwt. higher, but as soon as the buyers had filled most of their orders it was only natural that the market should ease off and the early advance was eliminated.

Monday's run was unexpectedly light again, and the market ruled 10@15c. higher, but Tuesday's supply was more liberal, and most of Monday's advance was lost. Wednesday, with a fresh supply of 28,000, trade opened very slow, and good to choice light and light and medium-weight butchers declined 15@25c. per cwt. from the high point Tuesday morning. Other grades were only weak to 5c. lower, and as we predicted a short time ago some of the premium on light and light butcher weights is disappearing, and we think it will only be a matter of a very few weeks until this premium all, or nearly all, disappears. The supply at Eastern points, especially of light, will no doubt be pretty liberal for the next two or three months, which will cut off the Eastern demand from this market, and then, too, we will no doubt have increased receipts of good light grades here in the near future. We would not be surprised to see all grades work some lower, but think the decline on the light and butcher weights will be much greater than on the heavier kinds. Bulk of the light and light butchers sold on Wednesday at \$8.75@9, not many above \$8.90; medium-weight butchers around \$8.50@8.70, with prime heavy at \$8.40@8.60; fair to good mixed, \$8.25@8.50; mixed packing, \$8.15@8.35; good medium and heavy packers, \$8.15 @8.25; pigs largely at \$5@6 if in good condition and good quality; good 110@130-lb. weights at \$6.75@7.50.

The sheep and lamb market continues to be flooded, but the demand on both killing and feeding account holds strong, and each day's receipts are cleared early in the session. We quote: Westerns—Good to prime lambs, \$7.10 @7.30; fat wethers, \$4.60@4.85; fat yearlings, \$5.60@6; fat ewes, \$4@4.25; feeding lambs, \$6.25@6.60; feeding yearlings, \$5@5.50; feeding wethers, \$4.40@4.60; feeding ewes, \$3.40@3.75. Natives—Good to choice lambs, \$7@7.25; poor to medium, \$6@6.75; culls, \$5@5.75; ewes, \$4@4.25; poor to medium, \$3.50@3.85; culls, \$2.75@3.40; breeding ewes, \$4.50@5.

KANSAS CITY

(Special Letter to The National Provisioner.)

Kansas City Stock Yards, September 23.

Unexpected heavy receipts of cattle came in yesterday, the total of 29,000 head being a third more than was counted on. The market ruled steady on most of the cattle, a

shade stronger on butcher grades, and a little weak on heavy fed steers. Today the run is 21,000 head, about normal for the season, market steady. As usual at this season, about one-half the supply is stock cattle. Killers' actions indicate heavy consumption, and there is no trouble with the market on the killing grades. On stock cattle and feeders, the corn States appear able to absorb unlimited numbers of cattle, and while prices fluctuate half a dollar or more from week to week, recoveries always balance the declines, so that cattle sellers have no cause to complain of prices. The yards are swarming with buyers from the country today, having come to this market in response to wires from commission men yesterday, advising of the liberal supply. Quarantine cattle are coming steadily, and it is said the grass quarantines will be strung along through October, account of cattle now putting on flesh from the revived pastures. Prime heavy natives brought \$8.80@9.10 both yesterday and today. Kansas cattle are selling steady, at \$6.50@8.35, covering all grades, and grass cows sell at \$5@5.70, canners around \$4.50. Large numbers of Colorado and Panhandle cattle have arrived this week, and there will be a heavy movement from both the sections indicated for six weeks or two months ahead. Good Colorados around 1,100 pounds sold to killers at \$7.15@7.40. Veals are higher, best at \$9@10.

Hogs are more plentiful this week, 13,000 here today, market 5@15c. lower. Packers fight prices every chance they have, even when receipts are very light, but their efforts have counted for little in effecting permanent declines so far this fall. Dealers predict that heavy hogs will lead in price within thirty days. Top today \$8.72½, bulk of sale \$8.10 @8.60.

Sheep and lambs are not changing much in price. Receipts here today 14,000, same number yesterday. Omaha and Chicago are getting excessive runs of range sheep and lambs, which prevents any strength showing itself. Utah lambs bring \$6.90@7.15, feeding lambs around \$6.35, fat ewes \$3.75@4.25, wethers up to \$4.75, light yearlings \$5.75.

OMAHA

(Special Letter to The National Provisioner.)

South Omaha, Neb., September 23.

The leading feature of the cattle market the past week was a general appreciation of values all along the line. Supplies of both corn-fed and range cattle have been rather disappointing and the demand from both packers and feeder buyers has been getting keener so that values for useful stock of all classes have been going upward. Native beefs show a 10@15c. advance, Western range beefs 15@25c., and cows and heifers 25@40c. Prime corn feds are quoted up to \$8.75@9.30, and prime range beefs at \$7.75@8.25. Dressed beef men apparently want all the good cattle they can get and for a time it was apparently not a question of price but simply of getting the cattle at all. Cows and heifers have been in very keen demand on account of the scarcity of low-grade steer stock, and prices are about the highest of the season, quality considered. Good to choice range heifers are selling at \$6.75@7.25, and the bulk of the fair to good butcher and beef stock is going at \$5.50@6.50, with canning and cutting grades at \$3.50@5.25. Veal calves continue scarce and firm at \$6.50@9.75, and bulls, stags, etc., find a free outlet at firm figures, \$5.25@7.

In the hog market it has been a very irregular trade, although the trend of values has been upward and prices are about 15@20c. higher than a week ago. Receipts continue of very moderate proportions, with the quality rather below the average for this time of the year, while the demand from both local packers and shipping buyers has been holding up remarkably well. All classes of buyers prefer the good to choice light and butcher grades and pay a big premium for them, but for the fair to good loads of all

weights the range of prices is comparatively narrow. With about 5,000 hogs here today the market was 5c. off. Tops brought \$8.45, as against \$8.65 last Tuesday, but the bulk of the trading was at \$8.05@8.15, as against \$7.90@7.95 a week ago.

ST. LOUIS

(Special Letter to The National Provisioner.)

National Stock Yards, Ill., Sept. 24.

Cattle receipts for the week ending today amount to approximately 29,700, including 7,350 Southern, which is a slight increase over last week. The market on beef steers continued to show an advance and today values are quoted about 10 to 15c. higher than last week. In the beef steer trading, good to choice quality offerings have been plentiful. The highest price paid this year for beef steers on this market was given for a load of strictly prime yearlings and two year olds which brought \$9.35, and averaged 1,109. Another load weighing 1,221 brought \$9.25, and a small string of yearlings averaging 760 brought \$9.25. Throughout the week there have been numerous sales over 9c. Several odd head of strictly heavy weight steers have sold as high as \$9.50. Medium to good grade steers are moved generally in a range of \$8.25 to \$9. Cows show an advance of 15 to 25c., as compared with last week, choice cows selling at times as high as \$8. Most of the strictly good offerings sold in a range of \$6.25 to \$7.25. The bulk cleared, however, at \$5.25 to \$6. Heifers are also quoted at 15 to a quarter higher than last week. The top on this kind was \$9. The bulk of heifers cleared in a range of \$6.75 to \$7.75, while a few sold from \$8 to \$8.25. The top on calves has fluctuated somewhat during the week, but generally values are steady.

Texas and Oklahoma receipts show a slight increase over last week, at the same time values on this kind being a good 10 to 15c. higher. The market on this side has been extremely active and \$7.70 paid yesterday for two loads of 987 lb. Oklahoma grassers sets the record for high prices on this class of cattle for the year on this market, if not for all markets. These were strictly grassers.

Approximately 42,200 hogs were received here during the past week. The week opened Thursday with a top on strictly prime lights at \$9.10; Friday the market declined about 5 to 10c., with a top of \$9. On Saturday the market remained steady, while on Monday prices took an up-turn of about 10 to 15c., with a top of \$9.15, which is the top for the week. Tuesday values were about 10c. lower, with a top for the day of \$9.10, but toward the close of the day values showed quite a decrease and good hogs sold as low as 9c., and in places as low as \$8.90. Today values are about steady at 10c. lower, the top today being \$8.92½ on light hogs. The bulk for the week has ranged from \$8.50 to \$9.10. The market generally has been fairly active and order buyers particularly so. This trade buying all the light hogs they could get their hands on.

Sheep receipts were 16,500 this week. As compared with last week's market, both mutton sheep and lambs are on a steady basis. There have been a few fluctuations in values, but this was due entirely to quality. Lambs topped as high as \$7.50 during the early part of the week and sheep at \$4.35. Today lambs are quoted at \$7.40 for the top and sheep at \$4.25. Good clearances were effected throughout the week.

NEW YORK LIVE STOCK

WEEKLY RECEIPTS TO SEPTEMBER 22, 1913.

	Beefers.	Calves.	Sheep and lambs.	Hogs.
New York	2,257	2,080	5,711	6,290
Jersey City	4,770	2,076	25,991	22,788
Central Union	8,614	317	12,298	—
Lehigh Valley	2,724	385	4,400	—
Scatterling	—	142	—	4,485
Totals	13,371	5,600	48,400	33,558
Totals last week	13,303	6,273	54,357	27,391

THE WEEK'S CLOSING MARKETS

FRIDAY'S GENERAL MARKETS.

Lard in New York.

New York, September 26.—Market quiet; Western steam, \$11.40; Middle West, \$11.20 @11.30; city steam, 11c.; refined Continent, \$11.80; South American, \$12.55; Brazil, kegs, \$13.55; compound, 9@9½c.

Marseilles Oils.

Marseilles, September 26.—Sesame oil, fabrique, — fr.; edible, 91 fr.; copra oil, fabrique, 114 fr.; edible, 130 fr.; peanut oil, fabrique, 78 fr.; edible, 94½ fr.

Liverpool Produce Market.

Liverpool, September 26.—(By Cable).—Beef, extra India mess, 122s. 6d.; pork, prime mess, 108s. 9d.; shoulders, square, 61s. 6d.; New York, 60s.; picnic, 44s.; hams, long, 71s.; American cut, 69s. 6d. Bacon, Cumberland cut, 74s.; long clear, 73s.; short backs, 67s.; bellies, clear, 70s. 6d. Lard, spot, prime, 57s. 3d. American refined in pails, 57s. 3d.; 28-lb. blocks, 55s. 9d. Lard (Hamburg), 56½ marks. Tallow, prime city, 31s. 6d.; choice, 33s. Turpentine, 30s. 6d. Rosin, common, 10s. 7½d. Cheese, Canadian finest white, new, 65s. Tallow, Australian (at London), 33s. 3d.@37s.

FRIDAY'S CLOSINGS.

Provisions.

The market was more active and firmer on the better tone to the hog market generally at Western receiving points.

Stearine.

Prices continue steady, with business limited at unchanged prices.

Tallow.

The market is firm with moderate offerings and a fair demand. City is quoted at 6½c. and specials 6¼c.

Cottonseed Oil.

The market was firmer and more active. Heavy rains in Texas caused some apprehension of delay in moving seed, and demand for contracts was more aggressive.

Market closed firm, two points decline to 10 points advance. Sales, 22,000 bbls. Spot oil, \$7.01@7.15; Crude, Southeast, \$5.87 nom. Closing quotations on futures: September, \$7.01@7.15; October, \$7.12@7.13; November, \$7.09@7.10; December, \$7.08@7.10; January, \$7.08@7.11; February, \$7.16@7.20; March, \$7.29@7.30; April, \$7.36@7.39; good off oil, \$6.85 bid; off oil, \$6.85 bid; red off oil, \$6.35 bid; winter oil, \$7.25 bid; summer white, \$7.25 bid.

FRIDAY'S LIVESTOCK MARKETS.

Chicago, September 26.—Hog market 5c. higher. Bulk of prices, \$8.15@8.65; light, \$8.75@9; mixed, \$7.95@8.95; heavy, \$7.85@8.85; rough heavy, \$7.85@8.05; Yorkers, \$8.85@8.95; pigs, \$4.25@8.25. Cattle slow; beefs, \$7.35@9.50; cows and heifers, \$3.85@8.75; Texas steers, \$7@8.10; stockers and feeders, \$5.40@8; Western, \$6.30@8.40. Sheep market weak; native, \$3.60@4.65; Western, \$3.75@5.60; yearlings, \$4.75@5.60; lambs, \$5.50@7.15; Western, \$5.50@7.15.

Sioux City, September 26.—Hogs steady, at \$7.90@8.25.

St. Louis, September 26.—Hogs higher, at \$8.60@9.

Cleveland, September 26.—Hogs strong, at \$8.15@9.15.

Buffalo, September 26.—Hogs strong, with 6,400 on sale; price, \$9@9.40.

Kansas City, September 26.—Hogs strong, at \$7.85@8.55.

South Omaha, September 26.—Hogs strong, at \$8@8.40.

St. Joseph, September 26.—Hogs strong, at \$8.15@8.50.

Louisville, September 26.—Hogs steady, at \$8.55@8.85.

RECEIPTS AT CENTERS

SATURDAY, SEPTEMBER 20, 1913.

	Cattle.	Hogs.	Sheep.
Chicago	400	12,302	1,000
Kansas City	300	1,621	500
Omaha	100	3,426	100
St. Louis	550	3,794	1,400
St. Joseph	100	2,200	1,400
Sioux City	500	2,000	400
St. Paul	1,500	1,000	7,800
Oklahoma City	25	300	
Fort Worth	500		
Milwaukee		1,278	
Denver	100	100	1,800
Louisville		1,690	
Detroit		200	
Cudahy		525	
Wichita		1,006	
Indianapolis	650	5,000	
Pittsburgh		3,000	1,000
Cincinnati		1,979	
Buffalo	2,100		3,000
Cleveland		1,000	
New York	1,491	590	1,441

MONDAY, SEPTEMBER 22, 1913.

Chicago	20,500	36,992	53,000
Kansas City	31,000	7,588	15,000
Omaha	13,000	5,114	2,800
St. Louis	8,000	9,874	700
St. Joseph	3,000	5,000	12,000
Sioux City	5,500	3,000	4,500
St. Paul	5,600	2,000	8,000
Oklahoma City	500	800	
Fort Worth	5,000	1,000	400
Milwaukee		5,224	
Denver	2,000	600	9,200
Louisville		4,080	
Detroit		200	
Indianapolis	800	2,000	
Pittsburgh	2,900	7,800	8,000
Cincinnati	3,558	3,444	779
Buffalo	4,200	14,500	16,000
Cleveland	160	3,000	2,000
New York	5,294	11,084	1,704

TUESDAY, SEPTEMBER 23, 1913.

Chicago	5,000	18,734	60,000
Kansas City	22,000	12,103	14,000
Omaha	7,000	5,084	44,000
St. Louis	9,000	10,659	3,500
St. Joseph	9,000	5,000	
Sioux City	1,000	3,000	1,500
St. Paul	2,000	2,000	
Oklahoma City	900	1,300	
Fort Worth	3,500	500	400
Milwaukee		2,835	
Louisville		200	
Detroit		200	
Cudahy		500	
Wichita		1,277	
Indianapolis	2,600	6,000	
Pittsburgh		2,500	1,000
Cincinnati		2,000	
Buffalo	700	3,200	1,600
Cleveland	200	1,000	2,000
New York	1,228	3,346	3,820

WEDNESDAY, SEPTEMBER 24, 1913.

Chicago	18,000	29,393	48,000
Kansas City	13,000	13,263	4,000
Omaha	8,000	5,152	36,000
St. Louis	6,500	11,548	3,500
St. Joseph		5,000	
Sioux City	1,200	5,000	2,500
St. Paul	1,200	2,000	4,400
Oklahoma City	800	1,200	
Fort Worth	5,000	1,800	
Milwaukee	75	2,329	
Denver	1,600	300	
Louisville		3,051	374
Detroit		1,500	
Cudahy		250	
Wichita		1,124	
Indianapolis	1,500	9,000	
Pittsburgh		1,500	1,000
Cincinnati	749	3,559	194
Buffalo	100	2,000	1,200
Cleveland	40	2,000	
New York	2,683	6,508	9,137

THURSDAY, SEPTEMBER 25, 1913.

Chicago	6,500	25,000	48,000
Kansas City	4,500	46,000	5,800
Omaha		5,000	
St. Louis	6,000	8,000	3,500
St. Joseph		6,000	
Sioux City		4,000	
St. Paul		1,000	
Milwaukee		1,187	
Louisville		3,621	40
Detroit		2,000	
Wichita		1,699	
Indianapolis		6,000	
Cincinnati	1,543	2,296	1,153
Buffalo	900	4,000	1,000
Cleveland		2,000	
New York	1,967	2,226	4,284

FRIDAY, SEPTEMBER 26, 1913.

Chicago	2,000	14,000	15,000
Kansas City	1,000	2,500	3,000
Omaha	1,200	4,900	18,000
St. Louis	1,600	5,200	1,300
St. Joseph	250	1,700	2,500
Sioux City	300	300	
St. Paul	250	800	
Fort Worth		3,200	3,200
Oklahoma	200	450	

PACKERS' PURCHASES

Purchases of livestock by packers at principal centers for the week ending Saturday, September 20, 1913, are reported as follows:

Chicago.

	Cattle.*	Hogs.	Sheep.*
S. & S. Co.	3,252	5,600	10,819
Armour & Co.	3,668	15,900	25,361
Swift & Co.	2,859	12,300	38,202
Morris & Co.	2,940	5,600	11,076
G. H. Hammond Co.	945	3,900	
Libby, McNeill & Libby	301		
Anglo-American Provision Co.	4,600	hogs; Boyd,	
Lunham & Co.	3,000	hogs; Western Packing Co.,	
5,600	hogs; Roberts & Oake, 3,000	hogs; Miller &	
Hart, 2,200	hogs; Independent Packing Co.,	5,300	
hogs; Brennan Packing Co.,	3,800	hogs; others, 1,500	

*Incomplete.

Kansas City.

	Cattle.	Hogs.	Sheep.
Armour & Co.	6,063	5,606	9,742
Fowler Packing Co.	1,700		3,343
S. & S. Co.	4,629	3,807	5,789
Swift & Co.	8,214	4,148	12,302
Cudahy Packing Co.	6,273	2,566	6,835
Morris & Co.	5,655	2,494	6,978
Butchers	260	402	98

B. Balling, 247 cattle; Blount, 537 cattle and 1,653 hogs; Independent Packing Co., 700 cattle; Kingan & Co., 146 cattle and 1,208 hogs; S. Kraus, 680 cattle; L. Levy, 67 cattle; John Morrell & Co., 440 cattle; I. Myers, 603 cattle; Peoria Packing Co., 43 cattle; M. Rice, 262 cattle and 1,142 hogs; Schwartz, Bolen & Co., 2,235 hogs; Wolf Packing Co., 98 cattle and 700 hogs.

Omaha.

	Cattle.	Hogs.	Sheep.
Morris & Co.	1,609	4,169	9,068
Swift & Co.	3,443	5,421	5,793
Cudahy Packing Co.	3,372	6,010	16,592
Armour & Co.	2,620	6,540	17,543
Swartz & Co.		559	
J. W. Murphy		4,063	

Lincoln Packing Co., 18 cattle; South Omaha Packing Co., 27 cattle; T. M. Sinclair & Co., 40 cattle; John Morrell & Co., 104 cattle; Kohrs Packing Co., 633 hogs.

St. Louis.

	Cattle.	Hogs.	Sheep.
Morris & Co.	3,992	4,798	3,412
Swift & Co.	4,300	3,038	5,840
Armour & Co.	3,951	5,354	4,951
St. Louis Dressed Beef Co.	866	240	576
Independent Packing Co.	1,697	1,048	
East Side Packing Co.	213	2,046	
Helz Packing Co.		707	
Hell Packing Co.		1,276	
Krey Packing Co.	8	1,880	
Carondelet Packing Co.	8	249	38

Sioux City.

	Cattle.	Hogs.	Sheep.
Cudahy Packing Co.	1,146	7,765	3,593
Armour & Co.	715	8,295	1,623
Swift & Co.		1,741	

R. Hurn, 259 cattle; Statter & Co., 54 cattle; Sacks Dressed Beef Co., 56 cattle; J. L. Brennan & Co., 49 cattle; John Morrell & Co., 27 cattle; regular dealers, 7,198 cattle; country buyers, 6,476 cattle and 11,016 sheep; Omaha Packing Co., 1,913 hogs; Cudahy Bros., 771 hogs; Roth Packing Co., 415 hogs; Dubuque Packing Co., 75 hogs; Lincoln Packing Co., 70 hogs; shippers, 800 hogs.

SLAUGHTER REPORTS

Special reports to The National Provisioner show the number of livestock slaughtered at the following centers for the week ending September 20, 1913:

CATTLE.

Chicago	25,636
Kansas City	32,835
Omaha	11,088
St. Joseph	10,706
Cudahy	616
Sioux City	2,265
New York and Jersey City	13,371
Fort Worth	7,042
Philadelphia	3,267
Pittsburgh	4,125
Denver	1,721
Oklahoma City	3,857
Wichita	1,200

HOGS.

Chicago	72,383
Kansas City	19,133
Omaha	20,599
St. Joseph	10,706
Cudahy	3,318
Sioux City	15,686
Cedar Rapids	5,348
New York and Jersey City	48,409
Fort Worth	5,422
Philadelphia	4,305
Pittsburgh	16,381
Denver	3,682
Oklahoma City	4,836
Wichita	5,100

SHEEP.

Chicago	121,332
Kansas City	45,067
Omaha	47,646
St. Joseph	21,730
Cudahy	695
Sioux City	5,516
New York and Jersey City	33,558
Fort Worth	3,467
Philadelphia	13,171
Pittsburgh	8,207
Denver	1,584
Oklahoma City	29
Wichita	125

Retail Section

MEAT MARKET ARCHITECTURE

Some Ideas on the Proper Planning of Meat Shops

Written for The National Provisioner by A. C. Schueren.

[EDITOR'S NOTE.—This is the first of a series of articles dealing with the architecture and fitting up of retail meat markets, written for The National Provisioner by an expert in this line, who is both a practical retail butcher and a draughtsman. Retail butchers who desire to bring their markets up to date should be able to get some excellent ideas from these articles.]

When a butcher intends to rebuild, or to erect a new market, there are many things which he has to consider. In laying out a market the main facts to bear in mind are these: first, to have the market as sanitary as possible; second, to have the cooler, meats, counters, office, etc., as conveniently located as possible; third, to use as many labor and time-saving devices as possible.

The sketch herewith shows a market located between two stores, and gives a practical layout of its features. Many good ideas can be taken from this plan and used in any other market, whether on this plan or not. It is the plan of a market actually in existence, which has proved to be practical. This particular market, after it had been completed, was called the handsomest and neatest market in the State in which it is located.

The window bases, doorway and floor up as far as the counter are in tile. The color of the tile is white, with a diamond-shaped blue piece of tile laid in. The walls are also of white tile, with a blue border. The tile floor only extends to the front of the counter, where the wood floor begins. Tile flooring should never be laid where the butchers work, as it is very slippery and hard to work on.

One side wall has a long three-rail nickel-plated rack. The other wall, being a partition wall and which has some corners on account of the adjoining store, is nicely arranged for the office, which is built under the stairs. Between the other two extending partitions on this wall a canned goods display case is built in, with glass sliding doors. The cash register is also placed in the center of the shelving here.

As the reader will notice by consulting the sketch, the entrance to the office, the canned goods department, the blocks, etc., are right where the butcher needs them, handy to his use, without the necessity of taking many steps to get to them. A few steps and he can reach the cooler, the canned goods department, the cash register and the office, and he need not go out in front of the counter at all.

The counters should never be farther away from the cooler front than 12 feet at the most. In the summer time—when meats are kept mostly in the refrigerator, it is very tiresome to walk a longer distance to get a piece of meat from the cooler window or through the cooler door.

The corner which is formed in the rear of the shelving is taken up with a track scale and sink. Whenever a sink is to be installed in a market it is advisable to have it where it is invisible to the customer, as it often happens that a piece of meat or poultry drops on the floor, and if the operation of

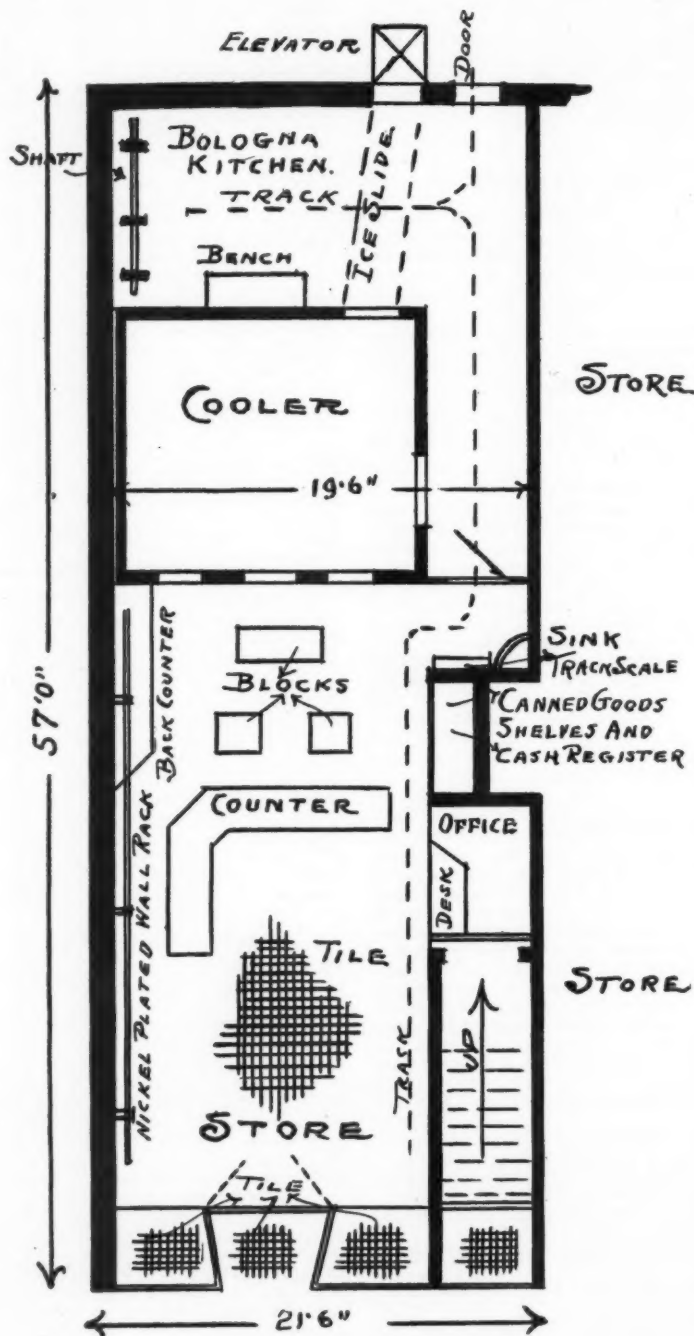
washing off is witnessed by the customer, he is liable not to buy it.

The front of the cooler extends from one side of the building to the other, and is tight up to the ceiling. As the bologna kitchen is in the rear of the refrigerator, the odors coming from it cannot get into the market.

For the conveyance of beef, etc., tracking is provided for the entire length of the store.

As the owner of this particular market objected to having the ice brought in the front way, some other method had to be devised to do this in the quickest and safest manner. There is no alley to go through in the rear of the market, neither is there an alley on the side. So the cooler was filled in this novel way. An elevator was built on the sidewalk for letting the ice down into the basement. When it reached the bottom the ice was transferred to trucks holding four large cakes of ice. These trucks ran on tracks laid in the basement, and when the

(Continued on page 150.)



A CORDIAL "FERRIS" "HOWDY"! To The Provision Fraternity of Our Country IN THEIR CONVENTION WEEK!

*Good Luck
To You
One and All*

**Why Do
CONSUMERS**

SURE ENOUGH



*In Health
Wealth and
Happiness!*

**Swear by the
"FERRIS" BRAND?**

THEY DO. WHY?

1st. For a quarter of a century only Our Finest Possible Curing would do for our Brand. A maxim of ours from way back has been "Our constant aim is to make them the finest in the world." Have we not made good? Every piece bearing "Ferris" Brand is cured by us on our own premises here.

2nd. Our prices are printed for one and all. During all these years we have never snatched a customer away from another Curer by cutting our printed price an eighth of a cent; we are glad of it! We can look every other Provision Man squarely in the eye after that record, for have we not given our Commercial Brothers a square deal?

3rd. "A Little Higher in Price, But—." Another maxim all through these years. What man can sell a dollar for ninety cents, and succeed? Why should he try? The cost of raw material, plus the cost of manufacturing, selling, collection, risk, etc., plus a living profit, shows what the selling price should be. Is not that good business?

4th. "Come with us and we will do you good." On such a platform every man can afford to sell less goods at first, if need be; take better care of quality and condition; make a living profit on what he *does* sell; shrink his production for a time to what he can sell. If all the time he is over-curing he is putting up the raw material on himself and breaking down his price by having an overstock; are we not "dead right"? If all the Cutters had worked together on these lines, the farmer would not have raked in two prices for Hogs. God Bless the Farmers! They should prosper! But when dressed Hogs sell in New York City to Cutters at thirteen to fourteen cents per pound, is not something crowding the mourners? See?

The Kansas Star said last spring: "The Hog is the farm mortgage payer." Sure! At these prices! And right away—Quick! But if Provision Men would act like Brothers, each in buying, cutting his coat according to his cloth; each bearing in mind that the other fellow has some rights to what is naturally his trade; each determined to have a better Bank account this year than last; and be good friends with all his craft?

Well! If the Convention of 1913 can beget such conditions, "Glory Be!"
Again Good Fortune to you, One and All.



New York Section

J. A. Howard, general manager at New York for the Sulzberger & Sons Company, returned from a trip to Chicago this week.

Swift & Company's sales of fresh beef in New York City for the week ending September 20, 1913, averaged 12.30 cents per pound.

A petition in bankruptcy has been filed by William Geier, a butcher at 40 Clinton street, New York City, N. Y. His liabilities are \$3,134 and no assets.

A petition in bankruptcy has been filed against Rennal V. Grober, dealer in meats and groceries at 860 Eighth avenue, New York, N. Y. His liabilities are \$4,000 and assets \$1,500.

Ten large stages, packed to overflowing with the employees of A. Silz, Inc., left the company's building on West Fourteenth street last Sunday, September 21, for a trip to Donnelly's Grove, College Point, L. I., where their annual outing was held. An enjoyable day was spent by everybody. The chief feature was an immense clam-bake.

On and after October 8, 1913, Richard Webber, Jr., will discontinue the distinction "Jr." in his name. He desires to be known as "Richard Webber," and such will be his signature. Richard Webber, Sr., the founder of the business, died several years ago. Richard Webber, his son, is now the head of the family, and with his brother, William Webber, owns the business.

Jesse H. Rodman, doing business under the name of H. Rodman & Son, dealers in meats and groceries at 531 Westchester avenue, New York City, has had a petition in bankruptcy filed against him by creditors. The liabilities are estimated at \$18,000 and assets at \$4,000. He was also in the wholesale meat business at First avenue and 44th street, and last July called a meeting of creditors for an extension.

The following is a report of the number of pounds of meat, fish, poultry and game seized and destroyed in the city of New York during the week ending September 20, 1913, by the New York City Department of Health: Meat.—Manhattan, 3,836 lbs.; Brooklyn, 13,875 lbs.; the Bronx, 50 lbs.; Queens, 235 lbs.; total, 17,996 lbs. Fish.—Manhattan, 7,450 lbs.; Queens, 220 lbs.; total, 7,670 lbs. Poultry and game.—Manhattan, 1,820 lbs.; Brooklyn, 23 lbs.; total, 1,843 lbs.

Just what amount of eatables it takes to provision a single trip of the modern ocean liner of today, may be seen by the following list which the Emperor carried to supply its tables on its last trip to this port. Fresh meat 50,000 lbs., venison and poultry 9,000 lbs., fresh fish 9,000 lbs., bread 6,000 lbs., yeast 1,000 lbs., eggs 48,000, fresh vegetables 28,000 lbs., fresh fruits 13,000 lbs., 150 cases of lemons and oranges, 1,500 boxes of ice cream. Around 100,000 cubic feet of storage

and refrigerated space are required for the storage of provisions.

Butter from Siberia and Australia is in bond waiting to make its debut into the American market along with Argentine beef. A thousand firkins of the Siberian product—weighing 144 pounds each—are stored in warehouses waiting the passage of the new tariff bill, which would reduce the present six cents tariff on butter to 2½ cents. Delivered into the refrigerators the Siberian butter has cost 20½ cents a pound, and adding the tax under the proposed tariff it would come to the dealer at 23¼ cents, said to be about 5 cents under the prevailing prices for butter of similar grade from domestic dairies. Some of the experts say that the Siberian product is as good as the best grades of domestic butter. A smaller quantity of Australian butter and a little from Canada is also here in bond awaiting the opening of the gate into the American market.

MEAT MARKET ARCHITECTURE.

(Continued from page 148.)

truck reached the rear of the building it was rolled on another elevator, which brought the ice up to the opening in the wall provided for this purpose, from where it was shoved into the cooler. This method of filling the refrigerator takes only a few minutes more than by having the ice come through the stores, but it eliminates all the dirt and slop incident to filling the cooler in the old way.

The conditions existing in this building may not be encountered very often, but the plan shows how to overcome certain obstacles. And it is an admirably planned market.

[The second in this series of articles on market architecture will appear on this page in an early issue of The National Provisioner.]

LOCAL AND PERSONAL.

Godfrey & Brown has purchased the meat market of C. L. Walker at Pittsburg, Okla.

A petition in bankruptcy has been filed by William Geier, a butcher at 40 Clinton street, New York, N. Y. His liabilities are \$3,134 and no assets.

Z. H. Woodbury has purchased Frank Hartwell's meat business at Clinton, Mass.

The old established meat and provision store of C. A. Simonds at Charlestown, Mass., has been purchased by J. T. Thurston.

Richards & Packard, meat dealers at Easthampton, Mass., have dissolved partnership. A. B. Richards will continue the business.

Ulish & Wagner have purchased the meat market of Palashek & Kaderabek at Monona, Iowa.

Chas. Nolte has purchased an interest in the meat market of E. Dusabek at Sheffield, Ia.

The meat market of A. Blitzshun at New Kensington, Pa., has been damaged by fire.

Lafey & Jackson have engaged in the meat business at Lebanon, Pa.

Wm. Drybread has opened a meat business at Bloomington, Ill.

A building is being erected at Ottawa, Ill.,

which will be occupied by Buehler Brothers as a meat market.

Jesse H. Rodman, a meat dealer at 531 Westchester avenue, New York, N. Y., has had a petition in bankruptcy filed against him.

A new meat market has been opened at Jones, S. C., by Austin & Koon.

A petition in bankruptcy has been filed against R. V. Graber, a dealer in meats and groceries at 860 Eighth avenue, New York, N. Y. His liabilities are \$4,000 and assets \$1,500.

M. F. Heyer has opened his new meat market at Davenport, Ia.

The meat market of Conlik & Hubbard at Stamford, Neb., has been destroyed by fire.

A. E. Winzenried is about to erect a building at Waukesha, Wis., for his meat market.

F. S. Becker has purchased the meat market of Powell & Cunningham at Aberdeen, Wash.

Houchins & Gibbons have purchased the meat market of J. Barger at La Crosse, Wash.

E. L. Bevier has again taken charge of the Idaho Meat Market at Spirit Lake, Ida.

The meat market of A. Kramer at Falls City, Neb., has been destroyed by fire.

L. Yost has purchased the Horney meat market at Tobias, Neb.

George Knox has engaged in the meat business at Palmyra, Neb.

I. E. Preece has sold out his meat market at Elgin, Neb., to C. D. Bosted.

Frank Culek has opened a new meat market at Bruno, Neb.

Guy Fisher has purchased the meat market of Henry Kaiser at Western, Neb.

D. C. Howell has disposed of his meat business at Bayard, Neb., to J. E. Hill.

A. Walker has engaged in the meat business at Oconto, Neb.

W. P. Wildeboer has purchased the Elliott meat market at Garden City, Kan.

R. J. Heptig has again engaged in the meat business at St. George, Kan.

Harker & Gaudreau have been succeeded in the meat business at Concordia, Kan., by Pearl and Will Townsden.

J. W. Badton has purchased the City Meat Market at Blair, Okla.

J. M. Newsom, formerly of Mineral Wells, Tex., has engaged in the meat business at Lindsay, Okla.

C. A. Rutledge has taken charge of the Crescent Meat Market at Crescent, Okla.

Daly Jordan has purchased the interest of Mr. Millie in their meat market at Savonburg, Kan.

J. T. Summers & Co. have engaged in the meat business at Mahaska, Kan.

Charles F. M. DeWesse has moved his meat business at Mullinville, Kan., into a better location.

Armock & Powers have succeeded to the butcher shop of Haas & Powers at Sparta, Mich.

David E. Stone has closed out his stock of meats at Bellevue, Mich.

Ojala Brothers have engaged in the meat and grocery business in Hancock, Mich.

James P. Grigware is opening a second meat market at Spokane, Wash.

L. H. Hankins, a meat dealer at Port Arthur, Tex., has filed a voluntary petition in bankruptcy. Liabilities are \$2,657, and assets \$2,850.

H. T. Meyer has opened a new meat market at Binghamton, N. Y.

The Tod Market of White Plains, N. Y., has filed articles of incorporation with a capital stock of \$40,000 by James Shaw, John Miles and Margaret Miles.

Samuel Ray has reopened the meat market at Watertown, N. Y., formerly conducted by Chas. Howell.

B. A. Culver, a meat dealer at Naugatuck, Conn., has filed a petition in bankruptcy with liabilities of \$1,430.80 and assets of \$300.

The People's Cash Meat Market at Watertown, Wis., has discontinued business.

John Polge, a meat dealer at Memphis, Tenn., has filed a voluntary petition in bankruptcy, giving his liabilities at \$846.50.

David Segadel, a butcher at 42 Broome street, New York, N. Y., has been discharged from bankruptcy. His liabilities were \$3,748.

"PIONEER" ASPHALT MASTIC FLOORS

Our ASPHALT SURFACING is known as ideal for
PACKING HOUSE FLOORS

It has been adopted by many of the most prominent Packers in America.
 Can be laid in old buildings over wood, cement, brick or concrete floors or in new buildings.

Write us for estimates, etc.

"PIONEER" INSULATION ASPHALT is the most efficient material for Abattoirs, Refrigerators, Ammonia Pipes, Freezers, etc.

NO INFRINGEMENT—(Important Notice)

FISH, RICHARDSON, HERRICK & NEAVE
 BOSTON

May 8, 1913.

The American Asphaltum & Rubber Co., Chicago.

Gentlemen: We have every expectation that the STANDARD ASPHALT & RUBBER CO.'S process and product will be held an infringement of the Byerley patent, as they seem to us to fall well within the scope of that patent as it was defined by the Court of Appeals for the Third Circuit in the case of Byerley v. the Sun Company on January 19, 1911.

We may say that with full knowledge of this decision against the Sun Company, and also with full knowledge of the so-called Culmer Patents, satisfactory settlements as to the use of the Byerley process and product were made with our clients (Byerley) not only by your company, but by the Standard Oil Co., Texas Co., Ellis Co. and other companies.

Yours very truly,

(Signed) FISH, RICHARDSON, HERRICK & NEAVE.

THE AMERICAN ASPHALTUM & RUBBER CO.
600-619 Harvester Building CHICAGO

MINCED LUNCH SAUSAGE.

A fine minced lunch sausage put up in beef bladders is made as follows: Use lean pork trimmings, 50 per cent.; beef trimmings, 16 per cent.; hog head meat, 34 per cent. To each 100 pounds of meat use 3 ounces of white pepper and about 5 pounds of water in chopping and mixing. Meats should be cured in special dry cure. The beef bladders should be selected so as to make weights stuffed from 5 to 8 pounds, not over that. Grind all the meats through a fine plate, then put through the chopper and chop fine, and thoroughly mix the whole. Smoke 5 to 5½ hours at 100 degs. to 130 degs. Fahr., and cook 4½ to 5 hours at 155 degs. Fahr. Handle throughout the entire process so as to save the flavor.

**SEE
 PAGE 156 FOR
 BARGAINS**

WHY YOU SHOULD KEEP A FILE.

In connection with the practical trade information published every week on page 18, The National Provisioner is frequently in receipt of letters from subscribers who recall having seen something interesting or important in a previous issue of this publication, but they have mislaid the copy and want the information repeated. The National Provisioner offers the suggestion that if every interested subscriber would keep a file of The National Provisioner he would be able to look up a reference at once on any matter which might come up, and thus avoid delay. A carefully-arranged index of the important items appearing in our columns is published every six months, and with this and a binder, which The National Provisioner will furnish, the back numbers of the papers may be neatly kept and quickly referred to for information.

The binder is new, and is the handiest and most practical yet put on the market, and it costs less than the old binder, too! It is finished in vellum de luxe and leather, with gold lettering, and sells for \$1. It may be

J-M INSULATING MATERIALS

J-M Pure Cork Sheets J-M Granulated
 J-M Impregnated Cork Cork
 Boards J-M Hair Felt
 J-M Mineral Wool J-M Weatherite Paper
 Write us as to your requirements.

H. W. JOHNS-MANVILLE CO.
 NEW YORK AND EVERY LARGE CITY

REFINED

SALTPETRE

GRANULATED and CRYSTALS

NIAGARA LABORATORY

Battelle & Renwick

163 Front St. New York

had upon application to The National Provisioner, 116 Nassau street, New York.

Libby's California Asparagus

The highest quality of this delicious vegetable. Fresh and tender with the fine natural flavor of carefully cultivated asparagus. Picked and canned same day at our plant in the Sacramento valley.

Always Buy Libby's

Libby, McNeill & Libby, Chicago



NEW YORK MARKET PRICES

LIVE CATTLE.

Good to choice native steers	.....	\$7.90@9.00
Poor to fair native steers	.....	6.00@7.85
Oxen and stags	.....	5.00@7.00
Bulls and dry cows	.....	3.50@7.00
Good to choice native steers one year ago	.....	7.85@9.75

LIVE CALVES.

Live veal, fair to prime, per 100 lbs.	.....	9.00@13.50
Live calves, fed, per 100 lbs.	.....	@ 7.50
Live calves, grassers	.....	@ 7.00
Live veal calves, Western, per 100 lbs.	.....	@ 8.75

LIVE SHEEP AND LAMBS.

Live lambs, medium to prime	.....	7.00 @ 7.75
Live lambs, culls	.....	@ 4.00
Live sheep, ewes	.....	3.00 @ 4.50
Live sheep, wethers, prime	.....	— @ —
Live sheep, culls, per 100 lbs.	.....	@ 2.50

LIVE HOGS.

Hogs, heavy	.....	@ 9.50
Hogs, medium	.....	@ 9.50
Hogs, 140 lbs.	.....	@ 9.70
Pigs	.....	@ 9.30
Rough	.....	8.00 @ 8.50

DRESSED BEEF.

CITY DRESSED.

Choice native heavy	.....	13½ @ 14
Choice, native light	.....	13½ @ 13½
Native, common to fair	.....	12 @ 13

WESTERN DRESSED BEEF.

Choice native heavy	.....	13½ @ 14
Choice native light	.....	13½ @ 14
Native, common to fair	.....	13 @ 13½
Choice Western, heavy	.....	12½ @ 13
Choice Western, light	.....	@ 12
Common to fair Texas	.....	@ 11
Good to choice helpers	.....	12½ @ 13½
Common to fair helpers	.....	11½ @ 12
Choice cows	.....	@ 11½
Common to fair cows	.....	10½ @ 11
Fleshy Bologna bulls	.....	10 @ 10½

BEEF CUTS.

	Western.	City.
No. 1 ribs	..... 16 @ 16½	16½ @ 17
No. 2 ribs	..... 14 @ 14½	15 @ 16
No. 3 ribs	..... 11 @ 12	14 @ 15
No. 1 loins	..... 16 @ 16½	17½ @ 18½
No. 2 loins	..... 14 @ 14½	16½ @ 17½
No. 3 loins	..... 11 @ 12	15½ @ 16½
No. 1 hinds and ribs	..... 15 @ 16	15½ @ 16
No. 2 hinds and ribs	..... 14 @ 15	15 @ 15½
No. 3 hinds and ribs	..... 13 @ 14	14 @ 14½
No. 1 rounds	..... 13 @ 14	12 @ 13
No. 2 rounds	..... 12 @ 13	11½ @ 12
No. 3 rounds	..... 11 @ 12	10½ @ 11½
No. 1 chucks	..... 11½ @ 12	@ 13
No. 2 chucks	..... 10 @ 11	@ 12½
No. 3 chucks	..... 8 @ 10	@ 12

DRESSED CALVES.

Veals, city dressed, good to prime, per lb.	.....	@ 20
Veals, county dressed, per lb.	.....	@ 17
Western calves, choice	.....	@ 16
Western calves, fair to good	.....	14 @ 15
Western calves, common	.....	13 @ 14
Grassers and buttermilks	.....	12 @ 13

DRESSED HOGS.

Hogs, heavy	.....	@ 11½
Hogs, 160 lbs.	.....	@ 12½
Hogs, 160 lbs.	.....	@ 12½
Hogs, 140 lbs.	.....	@ 13½
Pigs	.....	13½ @ 13½

DRESSED SHEEP AND LAMBS.

Spring lambs, choice, per lb.	.....	@ 14
Lambs, good	.....	@ 13
Lambs, medium to good	.....	11 @ 12
Sheep, choice	.....	@ 11
Sheep, medium to good	.....	@ 9½
Sheep, culls	.....	8 @ 9

PROVISIONS.

(Jobbing Trade.)

Smoked hams, 10 lbs. avg.	.....	@ 18
Smoked hams, 12 to 14 lbs. avg.	.....	@ 17½
Smoked hams, 14 to 16 lbs. avg.	.....	@ 17
Smoked picnics, light	.....	@ 12
Smoked picnics, heavy	.....	@ 11½
Smoked shoulders	.....	@ 11½

Smoked bacon, boneless	.....	@ 18
Smoked bacon (rib in)	.....	@ 16½
Dried beef sets	.....	@ 28
Smoked beef tongue, per lb.	.....	@ 20
Pickled bellies, heavy	.....	@ 15

FRESH PORK CUTS.

Fresh pork loins, city	.....	18 @ 21
Fresh pork loins, Western	.....	17 @ 20
Fresh pork tenderloins	.....	@ 32
Frozen pork tenderloins	.....	@ 31
Shoulders, city	.....	13½ @ 14
Shoulders, Western	.....	@ 13½
Butts, regular	.....	15½ @ 16
Butts, boneless	.....	@ 18
Fresh hams, city	.....	18½ @ 17
Fresh hams, Western	.....	16 @ 16½
Fresh picnic hams	.....	@ 12½

BONES, HOOFS AND HORNS.

Round shin bones, avg. 48 to 50 lbs.	.....	95.00 @ 100.00
per 100 pcs.	.....
Flat shin bones, avg. 40 to 45 lbs.	.....	per 100 pcs. 80.00 @ 85.00
Black hoofs, per ton	.....	40.00 @ 45.00
Striped hoofs, per ton	.....	50.00 @ 55.00
White hoofs, per ton	.....	95.00 @ 97.50
Thigh bones, avg. 85 to 90 lbs. per	.....	100 pcs. 90.00 @ 100.00
Horns, avg. 7½ oz. and over	.....	280.00 @ 285.00

BUTCHERS' SUNDRIES.

Fresh steer tongues	.....	@ 14½ c. a pound
Fresh cow tongues	.....	12½ @ 13 c. a pound
Calves' heads, scalded	.....	45 @ 50 c. a piece
Sweetbreads, veal	.....	45 @ 90 c. a pair
Sweetbreads, beef	.....	25 @ 30 c. a pound
Calves' livers	.....	@ 20 c. a pound
Beef kidneys	.....	@ 15 c. a piece
Mutton kidneys	.....	@ 3 c. a piece
Livers, beef	.....	8½ @ 10 c. a pound
Oxtails	.....	8 @ 9 c. a piece
Hearts, beef	.....	@ 6 c. a pound
Rolls, beef	.....	@ 27 c. a pound
Tenderloin, beef, Western	.....	@ 35 c. a pound
Lambs' fries	.....	@ 8 c. a pair
Extra lean pork trimmings	.....	15½ @ 16 c. a pound
Blade meat	.....	@ 12½ c. a pound

BUTCHERS' FAT.

Ordinary shop fat	.....	@ 3½
Suet, fresh and heavy	.....	@ 6½
Shop bones, per cwt.	.....	25 @ 1.00

SAUSAGE CASINGS.

Sheep, Imp., wide, per bundle	.....	@ 80
Sheep, Imp., medium, per bundle	.....	@ 60
Sheep, Imp., per bundle	.....	@ 50
Sheep, domestic, wide, per bundle	.....	@ 70
Sheep, domestic, medium, per bundle	.....	@ 50
Sheep, domestic, narrow med., per bundle	.....	@ 25
Hog, American, free of salt, tcs. or bbls., per lb., f. o. s. New York	.....	@ 70
Hog, extra narrow selected, per lb.	.....	@ 70
Hog, middles	.....	@ 10
Beef rounds, domestic, per set, f. o. b. Chicago	.....	@ 18
Beef rounds, export, per set, f. o. b. New York	.....	@ 24
Beef hungs, piece, f. o. b. New York	.....	@ 20
Beef middles, per set, f. o. b. New York	.....	@ 20
Beef middles, per set, f. o. b. Chicago	.....	@ 78
Beef weasands, per 1,000, No. 1s.	.....	@ 8
Beef weasands, per 1,000, No. 2s.	.....	@ 4½

SPICES.

	Whole.	Ground.
Pepper, Sing., white	..... 21	23
Pepper, Sing., black	..... 11½	13½
Pepper, Penang, white	..... 17½	19½
Pepper, red Zanzibar	..... 14	17
Allspice	..... 5½	7½
Cinnamon	..... 16	20
Coriander	..... 7	9
Cloves	..... 20	23
Ginger	..... 9½	12½
Mace	..... 65	70

SALTPETRE.

Crude	.....	4½ @ 5
Refined—Granulated	.....	@ 5½
Crystals	.....	5½ @ 7
Powdered	.....	@ 6

GREEN CALFSKINS.

No. 1 skins	.....	@ .25
No. 2 skins	.....	@ .26
No. 3 skins	.....	@ .13
Branded skins	.....	@ .17
Ticky skins	.....	@ .17
No. 1 B. M. skins	.....	@ .28
No. 2 B. M. skins	.....	@ .21
No. 1, 12½-14	.....	@ 2.90
No. 2, 12½-14	.....	@ 2.55
No. 1 B. M., 12½-14	.....	@ 2.45
No. 2 B. M., 12½-14	.....	@ 2.20
No. 1 kips, 14-18	.....	@ 2.35
No. 2 kips, 14-18	.....	@ 2.00
No. 1 B. M. kips	.....	@ 2.35
No. 2 B. M. kips	.....	@ 2.10
No. 1, heavy kips, 18 and over	.....	@ 3.70
No. 2, heavy kips, 18 and over	.....	@ 3.45
Branded kips	.....	@ 1.90
Heavy branded kips	.....	@ 2.25
Ticky kips	.....	@ 2.15
Heavy ticky kips	.....	@ 2.50

DRESSED POULTRY.

FRESH KILLED.

Fowl—Dry packed, 12 to box—	
Western boxes, 48 to 55 lbs. to doz., dry-picked, fancy	..... @ 19
Western boxes, 36 to 42 lbs. to doz., dry-picked	..... 16½ @ 17
Fowl—Lead, bbls.—	
Western, dry-picked, 4 lbs., choice	..... @ 18½
Southern and S. Western, dry-picked	..... @ 18
Other Poultry—	
Old Cocks, per lb.	..... @ 13½
Squabs, prime, white, 10 lbs. to doz., per doz.	..... @ 4.25

LIVE POULTRY.

Chickens, broilers, fancy, nearby, per lb.	.....	18½ @ 19
Chickens, broilers, Leghorns, cockerels	.....	@ 18
Chickens, broilers, Western, per lb.	.....	@ 18
Chickens, broilers, Southern, per lb.	.....	@ 18
Fowls, via freight, prime	.....	@ 19
Fowls, via express	.....	17½ @ 18½
Old roosters, per lb.	.....	@ 12½
Turkeys, hens and toms, mixed	.....	@ 17
Ducks, Long Island, per lb., spring	.....	16½ @ 18
Ducks, West. and So., per lb.	.....	@ 15
Geese, per lb., Western	.....	@ 13
Guineas, per pair	.....	@ 95
Pigeons, per pair	.....	@ 25

BUTTER.

Creamery, Extras	.....	32 @ 32½
Creamery, Firsts	.....	28½ @ 31
Process, Extras	.....	27 @ 27½
Process, Firsts	.....	25½ @ 26½

EGGS.

Fresh gathered, extras	.....	33 @ 35
Fresh gathered, extra firsts	.....	31 @ 32
Fresh gathered, firsts	.....	28 @ 30
Fresh gathered, seconds	.....	25 @ 27
Fresh gathered, dirties, No. 1	.....	21 @ 22
Fresh gathered, dirties, No. 2 and poorer	.....	16 @ 20
Fresh gathered, checks, good to choice dry	.....	19 @ 20

FERTILIZER MARKETS.

BASIS, NEW YORK DELIVERY.

Bone meal, steamed, per ton	.....	20.00 @ 20.50
Bone meal, raw, per ton	.....	27.50 @ 28.00
Hoof meal, per unit, Chicago	.....	@ 2.65
Dried blood, West, high grade, fine, f. o. b. Chicago, prompt	.....	2.85 @ 2.90
Nitrate of soda—spot	.....	@ 2.40
Bone black, discard, sugar house del.	.....
New York	.....	24.00 @ 25.00
Dried tankage, N. Y., 11 to 12 per cent. ammonia, f. o. b. New York	.....	2.85 and 10c.
Tankage, 11 and 15 p. c., f. o. b. Chicago, prompt	.....	2.70 and 10c.
Garbage tankage, f. o. b. New York	.....	7.00 @ 7.50
Fisch scrap, dried, 11 p. c. ammonia and 15 p. c. bone phosphate, delivered, New York (nominal)	.....	3.40 and 10c.
Foreign fish guano, testing 13@14% ammonia and about 10% B. Phos.	.....
Lime, c. i. f. Charleston and New York News	.....	3.40 @ 3.45
Wet, acidulated, 7 p. c. ammonia per ton, f. o. b. factory (35c. per unit available phos. acid)	.....	2.45 @ 2.50
Sulphate ammonia gas, for shipment, per 100 lbs., guar., 25%	.....	3.10 @ 3.15
Sulphate ammonia gas, per 100 lbs., spot, guar., 25%	.....	3.10 @ 3.15
So. Carolina phosphate rock, ground, per 2,000 lbs., f. o. b. Charleston	.....	6.50 @ 7.70
So. Carolina phosphate rock, undried, f. o. b. Ashley River, per 2,240 lbs.	.....	3.50 @ 3.75
The same, dried	.....	3.75 @ 4.00

